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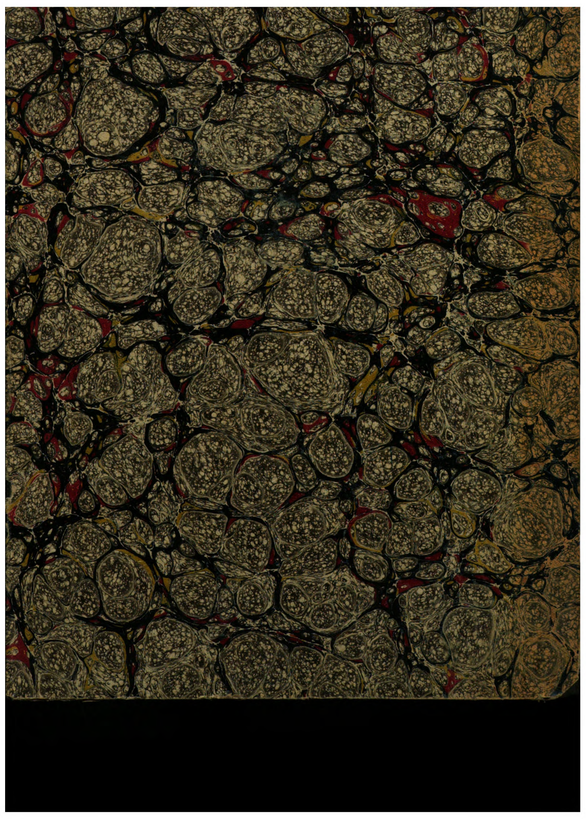
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Volume XXIV New York, N. Y., U. S. A., July 7, 1910 Number 1

# THE MOTOR WORLD

A trade paper giving the World's Motor News

Ten cents a copy—
Two dollars a year

SOLAR

The makers of most of the high-grade American cars pay for Solar Lamp equipment considerably more money than ordinary lamps would cost them.

They don't do this out of goodness of heart. They do it for the hard-business, common-sense reason that



**Solar Lamps**



and Solars alone, represent lamp perfection in the minds of the great majority of motorists.

No matter what make your car may be, the maker will furnish Solars if you insist on them.

Our free catalog tells all about them, including a great variety of special-purpose lamps for special needs.

LAMPS

**Badger Brass Mfg. Co.**
**Kenosha, Wis.** **New York City**

(95)

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# HARTFORD
# Automobile Sundries

Your sales can be increased materially by careful attention to this line of your business.

The Hartford Rubber Works Company offer you the highest grade and most complete assortment of sundries on the market.

Highest grade because Hartford products are always the highest grade.

Especial attention is given to the packing and labeling of this product, and a more attractive display cannot be imagined than the Hartford Boxes, Cans and Tubes.

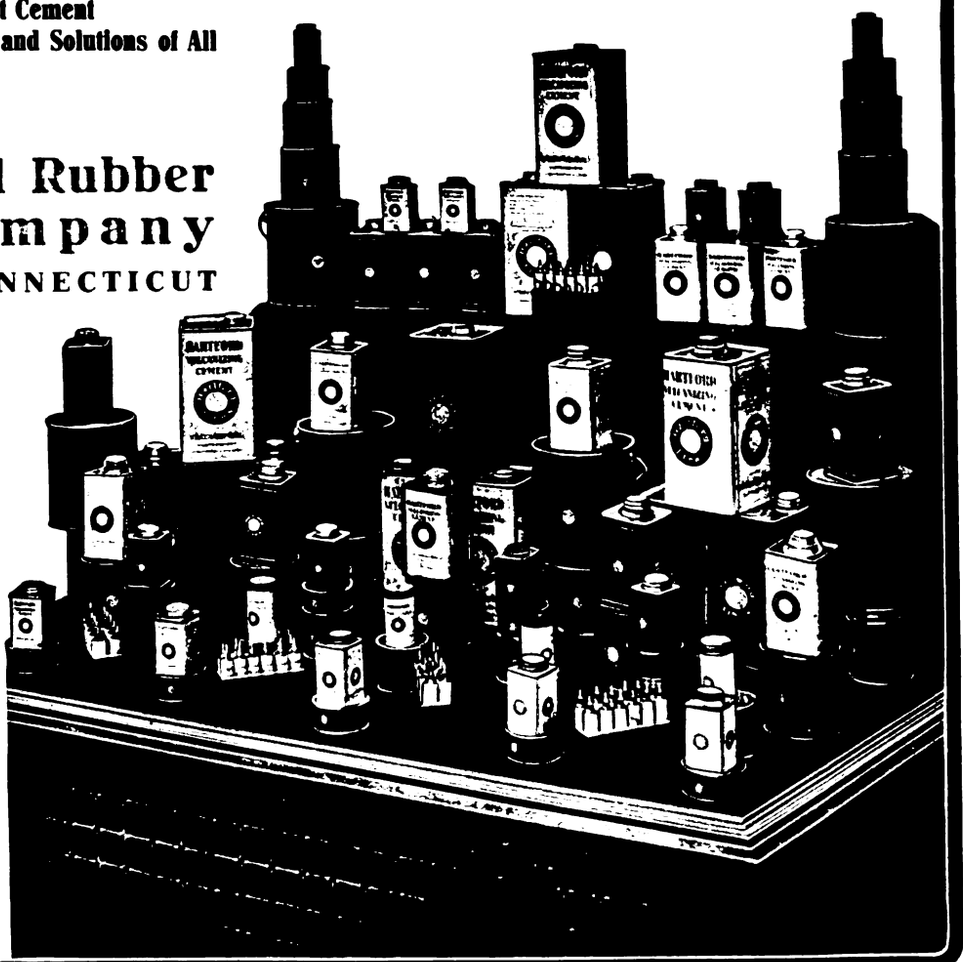
The Hartford Red Circle is prominent on each package and is your guarantee to your customer of fine grade material.

WRITE FOR OUR BOOKLET ON SUNDRIES—PUT IN A STOCK NOW

**Hartford Auto Shoe Liners**
**Hartford Tire Sleeves**
**Hartford Heal-a-Cut Cement**
**Hartford Cements and Solutions of All Kinds**

**Hartford Horn Bulbs**
**Hartford Gas Bags**

**Hartford Acetylene Tubing**
**Hartford Auto Patches**



## The Hartford Rubber Works Company

**HARTFORD, CONNECTICUT**

**Branches**—New York, 57th St. and Broadway; Chicago, 12th St. and Michigan Ave.; Boston, 817 Boylston St.; Philadelphia, 1425 Vine St.; Detroit, 256 Jefferson Ave.; Buffalo, 725 Main St.; Cleveland, 1831 Euclid Ave.; Denver, 1564 Broadway; Atlanta, Ga., 94 No. Pryor St.; Minneapolis, 622 3rd Ave., So.; Kansas City, Mo., 719 E. 15th St.

**Agencies** — Chanslor & Lyon Motor Supply Co., Los Angeles, Cal.; Chanslor & Lyon Motor Supply Co., San Francisco, Cal.; Chanslor & Lyon Motor Supply Co., Seattle, Wash.; F. P. Keenan Company, Portland, Ore.; Appeal Mfg. & Jobbing Co., Los Angeles, Cal.; Baker & Hamilton, San Francisco, Cal.; Phoenix Auto Supply Co., St. Louis, Mo.; Joseph Woodwell Company, Pittsburg, Pa.

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# REMY MAGNETO

## Conclusively Proves Superiority Again in Great Speedway Races

**AT INDIANAPOLIS, JULY 1, 2 AND 4.**

**Wins 100 mile race for Remy Brassard**
**Wins 50 mile race for G & J Trophy**
**Wins second in 200 mile Cobe Cup Race**

**During three days, REMY equipped cars capture 12 firsts, 9 seconds, 4 thirds and 27 new records.**

**Burman's time for 200 miles, 2:43:20.13, an average of 73.47 miles per hour.**

In Cobe Cup race, Bob Burman, in the Marquette-Buick, equipped with REMY magneto, finished second. The daring pilot climaxed three days of unequalled triumphs in REMY equipped cars on the Indianapolis Speedway by capturing next to first honors in the Cobe race, beaten out by seven seconds after disastrous tire trouble. Louis Chevrolet finished fifth in REMY equipped Marquette-Buick in the Cobe race. Arthur Chevrolet and Burman shattered 14 records in this struggle, with the aid of Perfect REMY ignition.

**Wins 100 mile race for REMY Brassard and Grand Trophy.**

On Saturday, July 2, Burman, in the Marquette-Buick equipped with the famous REMY high-tension magneto, conquered the flower of American cars in the great race for the REMY trophy. Time 80 minutes and 35.6 seconds, an average of 74.44 miles per hour. New records for 40, 50, 90 and 100 miles. Arthur Chevrolet, in REMY equipped car, finished fourth in the Brassard event.

**Wins 50 Mile Race for G & J Trophy.**

On Friday, July 1, Burman, in the Marquette-Buick, won the G & J event from a strong field in 40 minutes 3.1 seconds, breaking four records and averaging 74.89 miles per hour on Friday. A REMY equipped car won the G & J Trophy in 1909. Louis Chevrolet, also in a REMY equipped car, won second honors in the tire trophy race.

In the time trials on Friday, Burman, in the big Buick Special, REMY equipped, attained the record speed of 105.87 miles per hour.

**These victories in the leading speed classics prove again what the world's most famous racing pilots and greatest motor car makers have long known — that the REMY magneto is the best in the world.**

## REMY ELECTRIC COMPANY, Anderson, Ind.

BRANCHES—1400-1402 Michigan Ave., Chicago; Automobile Bldg., 64th St. and Broadway, New York City; 471 Woodward Ave., Detroit; 406 East 15th St., Kansas City; 170 Golden Gate Ave., San Francisco; 214 Pleasant St., Boston.

AGENCIES—Auto Equipment Co., 1518 Broadway, Denver; Hollis Electric Co., 9 North Sixth St., Minneapolis; J. H. McCullough & Sons, 219 North Broad St., Philadelphia.

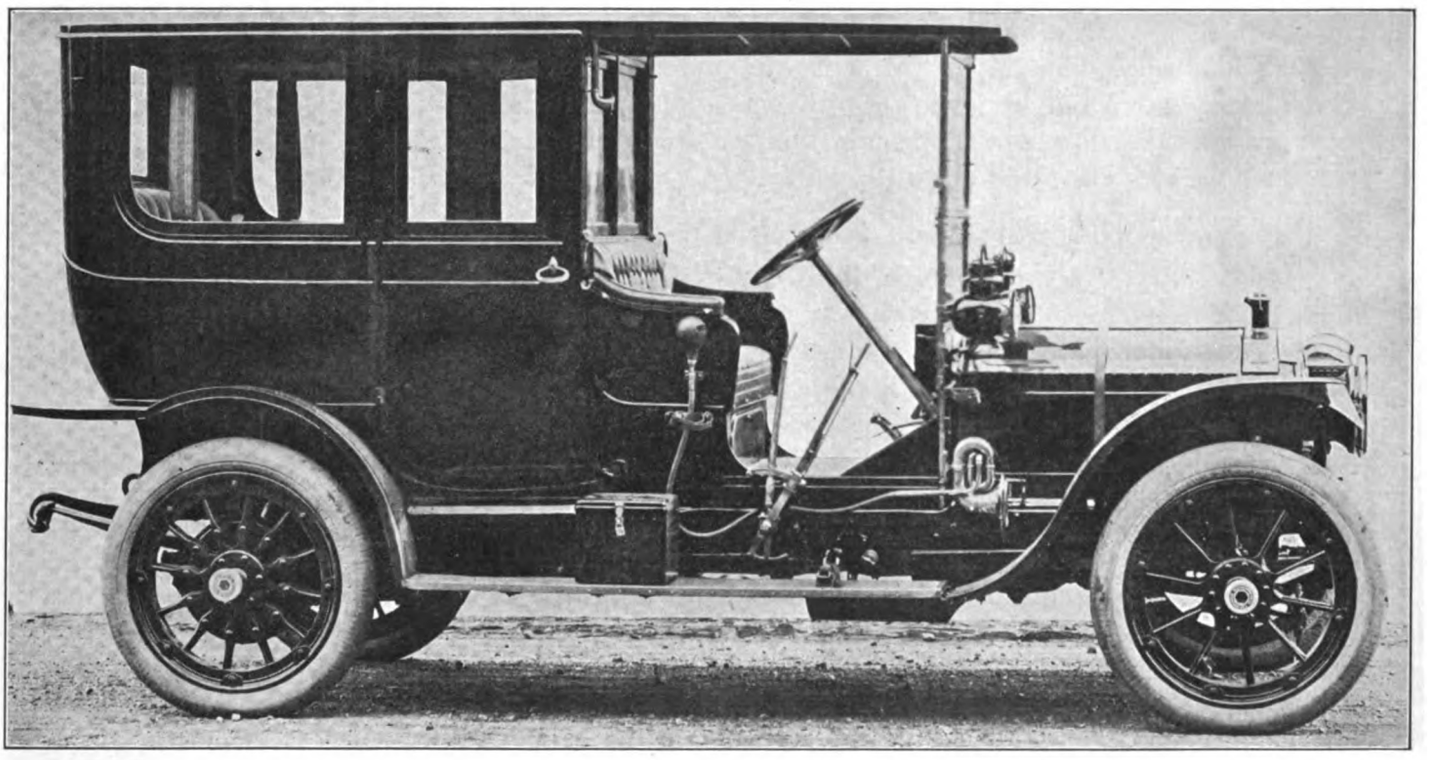

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# Limousine Bodies

## FOR THE 1910-1911 CLOSED CAR SEASON

**Now is the Time to Arrange for Prompt Deliveries.**

Our bodies are suited for the highest-class trade. In them the art of the body builder finds its fullest expression.



**Write for Estimates**

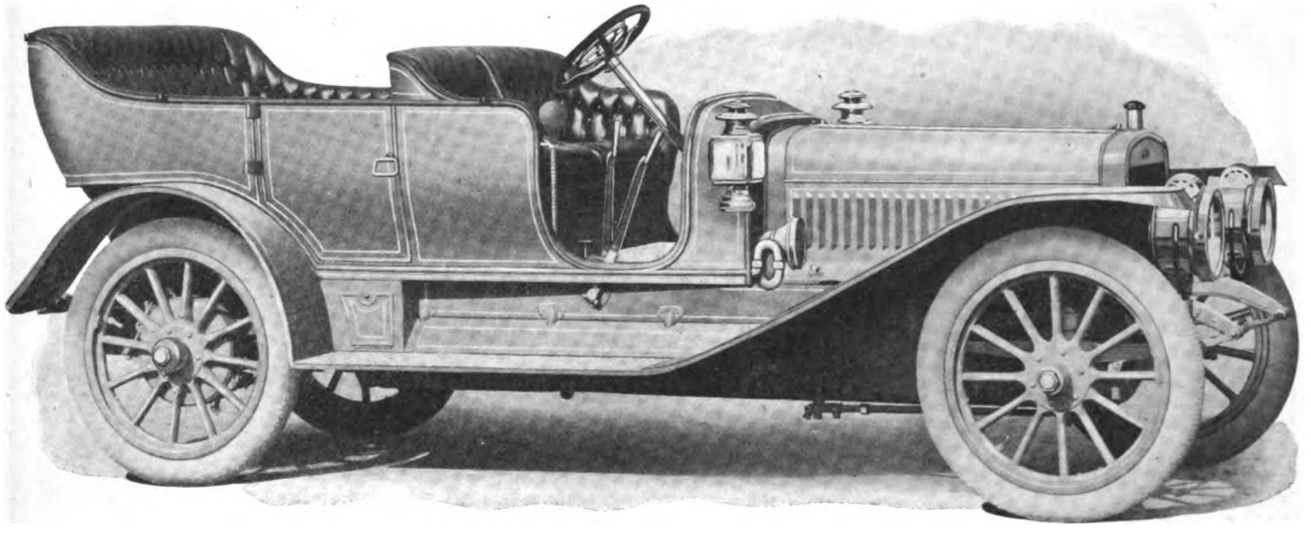
**SPRINGFIELD METAL BODY COMPANY, Springfield, Mass.**


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# Here's a car that has never required a single radical change—

## it's the Self-Cranking, Sweet-Running, Six-Cylinder

# 1911 WINTON SIX $3000



## The Winton Six for 1911 is the same 48 H. P. car we made for 1910, for 1909, for 1908

A success from the start: has not required a single radical change in design or construction.

Only motor in the world that *cranks itself.*

Six 4½ by 5 inch cylinders. All moving parts housed. Cylinders offset.

Ball-bearing, multiple-disc clutch of large diameter.

Ball-bearing, selective-type transmission, with four speeds, of course.

Dual ignition. Bosch magneto. Storage battery.

Frame narrowed in front to allow short turns, and raised over rear axle to allow low suspension of motor and body.

Drop-forged front axle. Full floating type rear axle.

Spacious straight-line body. Seats five.

This car holds the world's record upkeep expense. Averages 77 cents per 1000 miles. Sworn records only. No hearsay or guess-so.

Famous for quiet and beautiful operation, remarkable flexibility, superb hill-climbing capacity and longevity. Because it's a real Six.

Made by the only company in the world that is producing Sixes exclusively for the fourth successive year.

Sells at $3000. To find its value, compare it with cars costing $5000 to $6000.

And worthy of the consideration of every man who thinks well enough of himself to want in his service the latest and the best utilities his money can buy.

Let us send our explicit literature—it is too clear to be misunderstood. Clip the coupon and mail it today.

**The Winton Motor Car. Co.**
Licensed under Selden patent.
**426 Berea Road, Cleveland, Ohio**

Please send Winton Six literature to

_____

_____

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# You can learn more

about Gray & Davis lamps, by letting us send pictures, literature and prices, and, if need be, the lamps themselves. The information is good for you and for us. Why deny yourself? You can write to-day.

# Electric "Bullets"

for Torpedo bodies. These are advanced types of electric lamps, that match the newer conditions of body design.

# "Close Coupled"

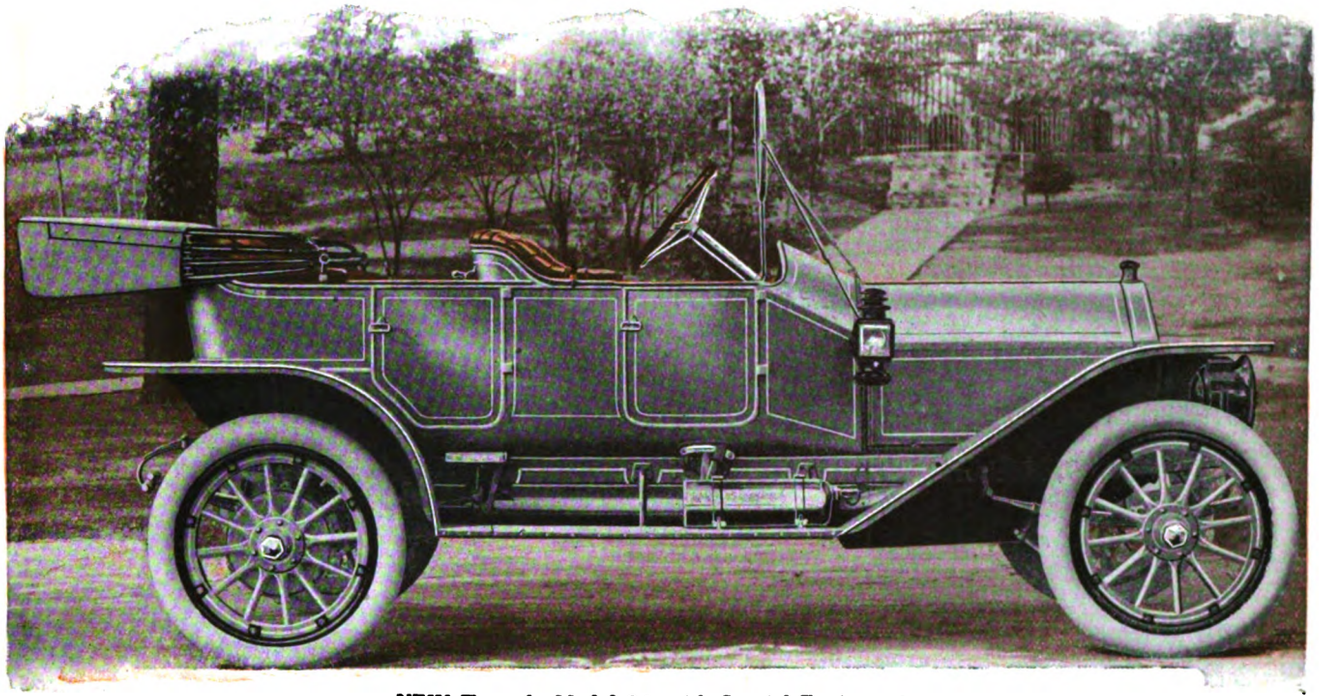
headlights of Gray & Davis origination and manufacture are the most pronounced lamp success of years. They are imitated, but do you hanker for imitations?

# Every lighting need

is met in the Gray & Davis line—rear; front; side; dash; limousine. And every lamp is "efficiency molded to art."

GRAY & DAVIS, Amesbury, Mass.


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**NEW Torpedo Model 34, with Special Equipment**

**40 H.P.** *Special Equipment Model 34. Spanish Leather Upholstering. Demountable Rims. Prest-O-Lite Tank. Solar Headlights, Black Enameled. Combination electric side and tail lamps, Black Enameled. Storage Battery. Exhaust Horn. Tire Irons. Foot Rail Robe Rail.* **$2,000**

# World's Two Greatest Automobile Values Now Ready for Delivery!

WHEN you buy a car you buy Performance, Durability, Comfort, Economy and Style. The car whose price is so high that its merit cannot possibly equal the price, is being sold upon other than a value basis. In the Inter-State you get maximum value, dollar for dollar. **Actual records** and specifications **prove** that the Inter-State at these prices offers far the greatest value on the market today!

# Two NEW Inter-State "40" Models

The Inter-State of 118 in. wheelbase is the maximum value at $1750 by reason of its long wheelbase and a 40 horsepower motor with 4½ in. bore by 5 in. stroke, built entirely in the manufacturers' own plant.

A better car cannot be built to sell at $1750 that has the fine finish, the durability, the artistic harmony and the smooth riding qualities of the Inter-State.

Even in the highest priced cars you will not find one that has all the following features of the Inter-State—a double ignition system; a rolling push rod contact on the cam shaft; integral water pump, oil pump and an imported high tension magneto, all located on one side of the motor and driven by one shaft. And you can find none whose parts are so easily accessible.

You can find no other motor embodying only the best features of modern motor car practice that is as simple in design as the Inter-State motor.

Upon inspecting the entire chassis, which is the most important part of any car, and comparing it point by point, you will find that no other car at anywhere near the same price has the same refinement, the same high quality of materials and superior workmanship as is found in the Inter-State. And you will find in this car a new high standard of interchangeability of parts.

The Inter-State stands second to none on long, severe service. It is the one car that offers you all of the above features in addition to the regular standard practice.

**DEALERS ARE ENTHUSIASTIC!**

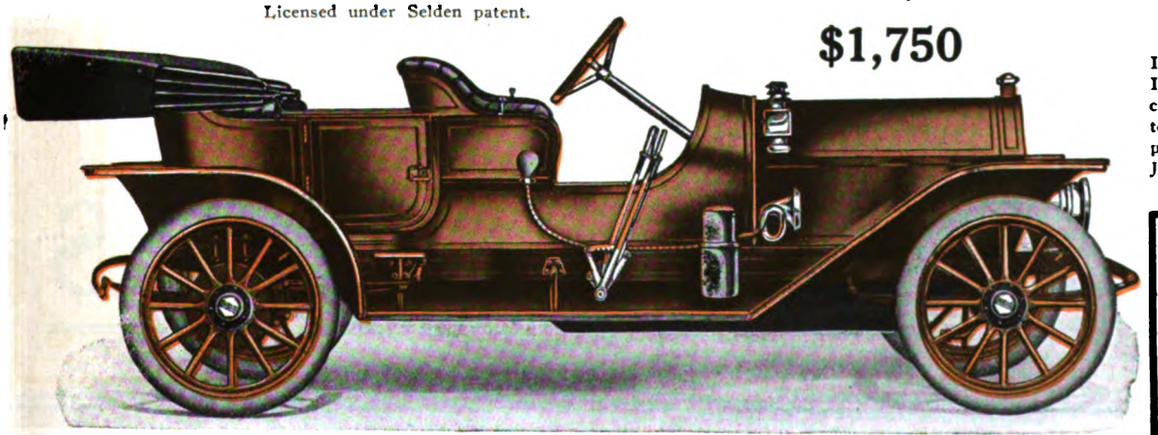
The following telegram is a concrete example of the many enthusiastic compliments that we have received on the unparalleled merit of the new values which we are now offering:

Providence, R. I., May 20, 1910.
Inter-State Automobile Co., Muncie, Ind.:
Congratulations on Torpedo. Handsomest car under four thousand dollars. Oh, so silent; not any vibration. Comments galore. C. H. GOODWIN.

## INTER-STATE AUTOMOBILE COMPANY, Muncie, Ind.

**Write for information regarding choice territory for dealers**

Licensed under Selden patent.




**NEW Model 31A Inter-State "40"—Demi-Tonneau**

**Send for New Book!**

It illustrates cars in exact colors. It tells all about the many high-class features we haven't room here to tell about and describes every part of the Inter-State in detail. Just fill out the coupon.

**TEAR THIS OUT!**

(M.W.)
**A Reminder**
**Inter-State Automobile Company**
**Muncie, Ind.**

Please send your new 1910 book.
Name.....
Address.....
.....
(48)

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# The Dayton Motor Car Co.

**Dayton, Ohio**

place the largest individual order ever given for demountable rims. All 1911 Stoddard-Dayton and Courier cars will be equipped with

# THE STANDARD UNIVERSAL RIM

**MANUFACTURED BY**

## The United Rim Company

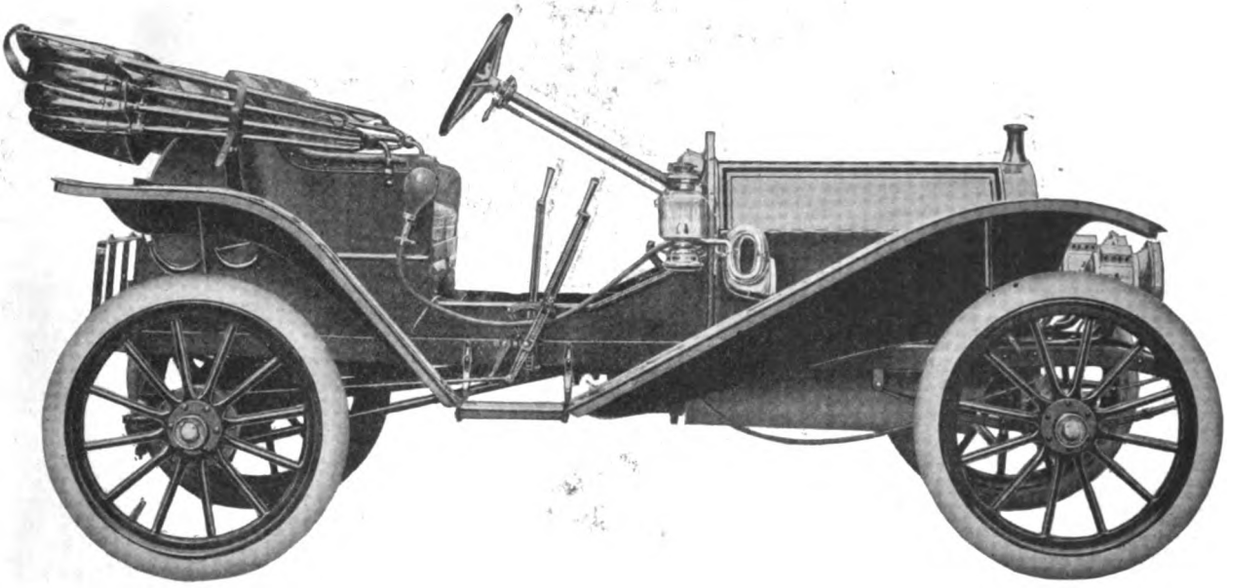
**Akron, Ohio**

The wholesale adoption of the Standard Universal Rim by representative automobile manufacturers is the best argument in favor of its practical and desirable demountable and quick detachable features.

# FITS ALL TIRES


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# Hupmobile



4 CYLINDERS
20 H. P.

$750

(F. O. B. DETROIT)

Including three oil lamps, horn and tools.
Top, gas lamps and tank, speedometer extra.

SLIDING GEARS
BOSCH MAGNETO

The second year of a car that has never lost a friend.

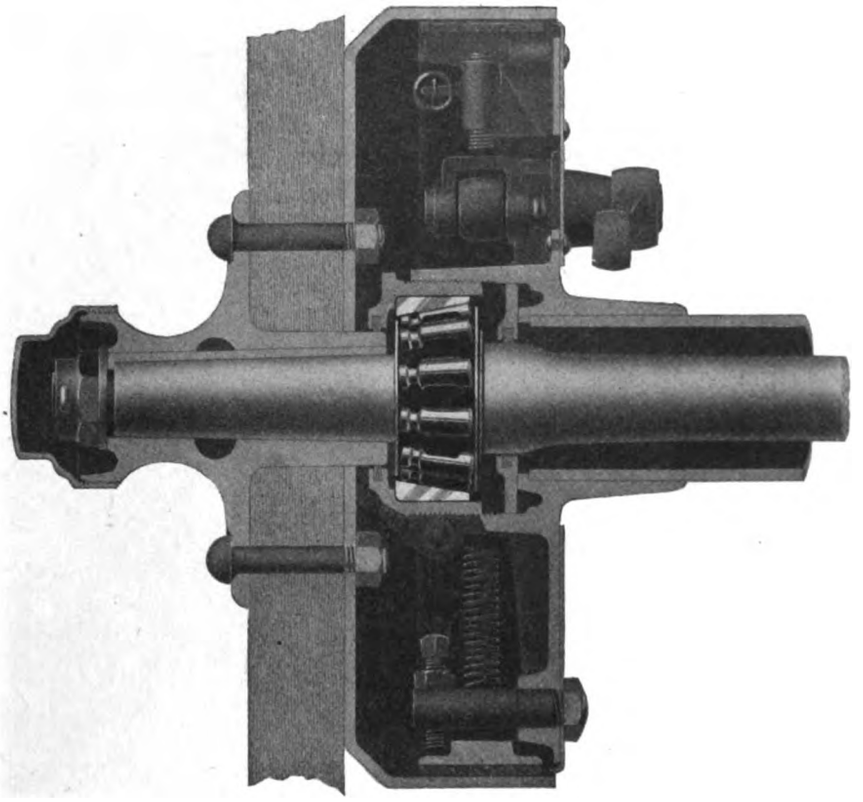
A car that continues to make good with a constantly growing list of owners that now mounts into the thousands.

## HUPP MOTOR CAR COMPANY

Dept. K, Detroit, Mich.

Licensed under Selden patent.


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# Timken Roller Bearings

¶ The above cut shows the application of TIMKEN ROLLER BEARINGS to the end of the usual form of Fixed Hub Type of Bevel Drive Rear Axle.

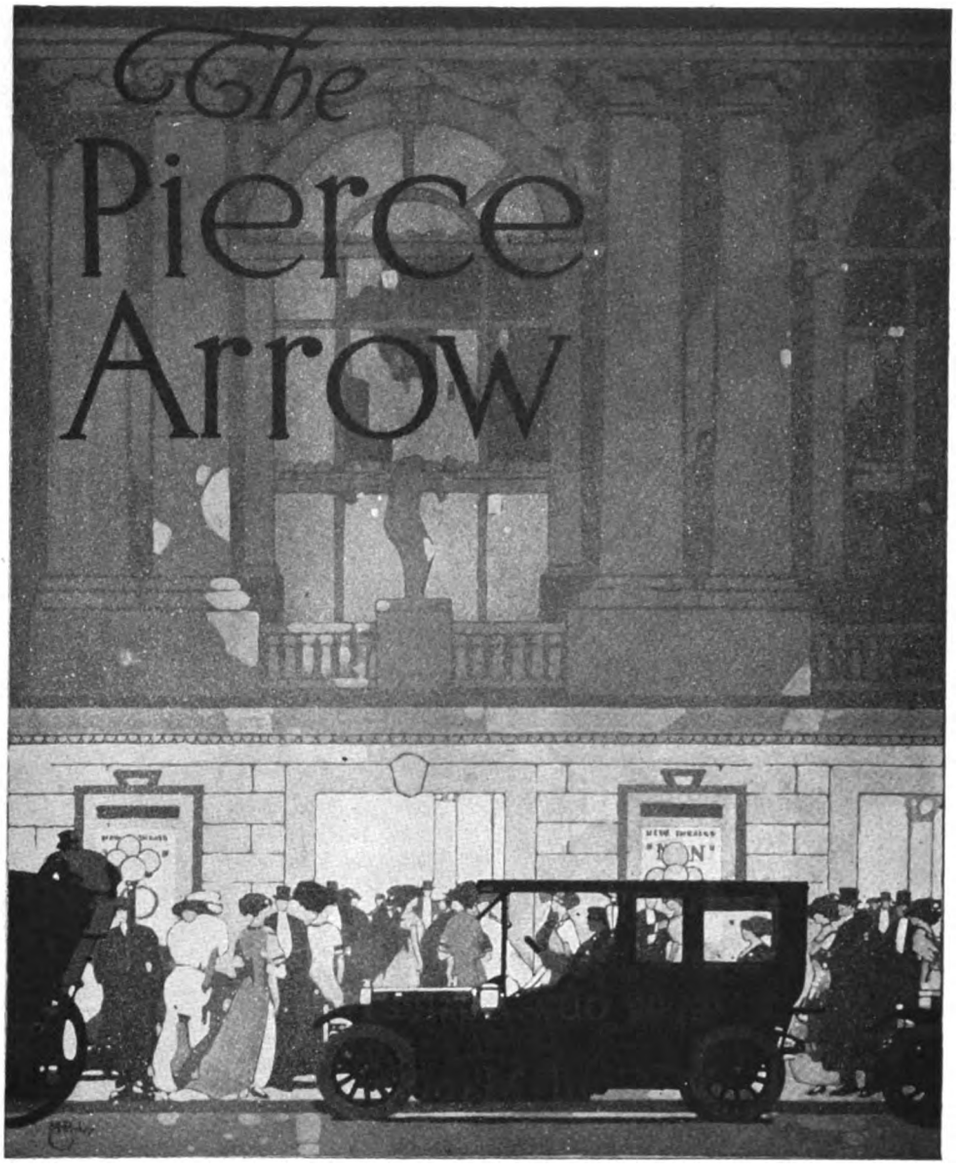
¶ In this construction one bearing is used at each end of the axle, the bearing being inserted with the large diameter of the roll facing the center of the axle.

¶ The individual driving shafts should telescope freely through the driving gears in the differential at the center of the axle with their ends butting together. This allows the end thrust strains which are developed when a car turns corners at high speed, being carried directly across the axle and being taken up in the bearing on the other end of the axle, in no wise throwing any strains on the differential.

¶ The take-up features of our tapered bearing make their application in rear hubs especially practical and successful.

THE TIMKEN ROLLER BEARING CO.
CANTON, OHIO

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*The Pierce-Arrow at the New Theatre*

ATTRACTIVE design and thorough construction are happily combined in every Pierce-Arrow Car. It possesses efficient beauty and beautiful efficiency.

THE PIERCE-ARROW MOTOR CAR COMPANY, BUFFALO, N. Y.
Licensed under Selden Patent.

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# McCORD

The name that means much to all who buy or use

**Radiators**
**Fans**
**Lubricators**
**Pumps**
**McKim Gaskets**

Because it stands for

Quality
Efficiency
Integrity

and always will.

"ASK OUR COMPETITORS"

McCord Manufacturing Company
Detroit, Michigan


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# This Advertisement is for Members of Automobile Leagues

Whether or not you are a member of an Automobile Owners League this advertisement ought to be of interest to you.

A host of automobile owners, being led by the alluring prospectus of some so-called Owners League, have been persuaded to join with the idea that they would be able to procure standard auto accessories at dealers' prices.

**They Cannot Buy**

SHALER

**ELECTRIC VULCANIZERS**

To show the public that standard auto accessories cannot be purchased from these leagues at cut rates, we publish herewith two letters that speak for themselves.

Albany, N. Y., April 20, 1910.

SHALER ELECTRIC CO., Waupun, Wis.:

Gentlemen—We are in receipt of your letter under date of April 15th, and regret that you do not see your way clear to sell us at less than list prices. We have sold a great many vulcanizers of your make and could continue to do so, if we could get the right prices. You will now force us to recommend to our subscribers some other vulcanizer. We think you should reconsider this matter, as we are not selling goods at cut rate prices, but are maintaining the list prices in every instance.

All of our subscribers are stockholders and all pay the list prices, receiving their profits in the form of dividends. It is a perfectly legitimate proposition, and incorporated under the laws of the State of New York, and is not a price cutting scheme.

Yours very truly,
CO-AUTO SERVICE CO.,
C. H. Peddrick, Jr., President.

Waupun, Wis., April 26, 1910.

CO-AUTO SERVICE CO., Albany, N. Y.:

Gentlemen—We were certainly very much surprised at the tone of your letter of April 20th, for, while we are not at all in sympathy with automobile leagues, still we were under the impression that they were usually organized with the at least secondary object of serving their stockholders. But we find that we have been laboring under a misapprehension, for you state that, although you have sold a great many vulcanizers of our make and could continue to do so, you will be forced to recommend some other vulcanizer to your subscribers.

Evidently the fact of the Shaler being the acknowledged standard and so far superior to any other that you yourselves acknowledge that it is a ready seller, is of no consequence to you whatever, and if you are able to find some vulcanizer manufacturer who, instead of protecting the legitimate jobber, will comply to your requests or toady to your threats, you will recommend his vulcanizer whether or not it is of any practical value.

We must say that we are very glad to have been informed at first hand of the policy of your association.

Very truly yours,
RBD:ELW C. A. SHALER CO.

**C. A. SHALER CO., 1209 4th St., Waupun, Wis.**


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# THE MARMON

"The Easiest Riding Car in The World"

# Won the Cobe Cup Race

## THE GREAT WESTERN CLASSIC



Broke the record by 10 minutes and 28 seconds, for the 200 miles. Time, 163 minutes, 20.1 seconds, averaging 73½ miles per hour.

Defeated many larger cars. Beat the Vanderbilt Cup winner. But two MARMONS started. Both finished in the pink of condition, Dawson first and Harroun a close third. Both were stock cars—duplicates of the kind you buy.

This completes the most remarkable string of victories ever won by any car in big competitions, including the Atlanta Speedway Trophy (200 miles), the Wheeler & Schebler Trophy (200 miles), the Wheatley Hills-Vanderbilt (190 miles), and many other famous races.

**NORDYKE & MARMON CO. (Estab. 1851) Indianapolis, Ind.**

Licensed under Selden patent.


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# Marmon, Winner of the Cobe Trophy, Won with a BOSCH Magneto

**Dawson captures trophy by driving the Marmon 200 miles in 163 minutes and 20 seconds. Harroun in another Marmon third, Grant in Alco fourth, in this famous Western Vanderbilt race.**

## The Glidden Tour won by Premier also Bosch equipped

## BOSCH MAGNETO COMPANY

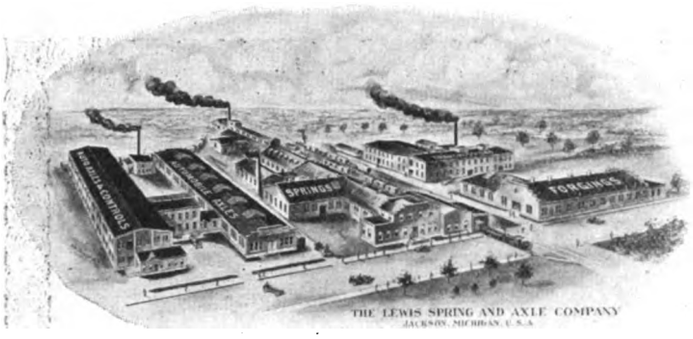
**223-225 West 46th Street** **New York**

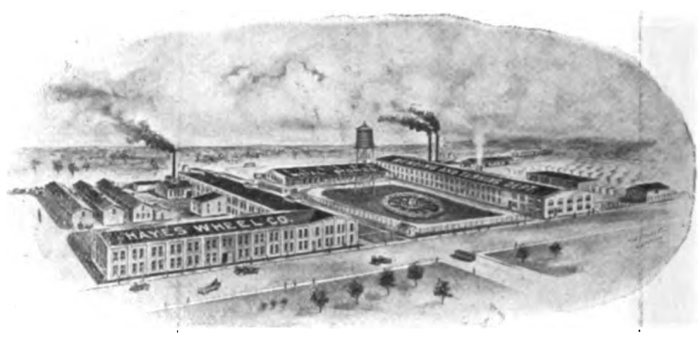
Chicago Branch:
1253 Michigan Ave.

San Francisco Branch:
357 Van Ness Ave.

Detroit Branch:
878 Woodward Ave.

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# Delivery as Vital as Quality

Two cardinal features mark our service to the automobile builder.

These are delivery and quality.

They are of equal moment; one is as vital to the success of the motor car builder's business as the other.

In the matter of delivery, we have only to point to our constantly growing list of customers.

Included among them are the most exacting buyers of parts in the industry.

The mere names of the companies whose products we market are recognized as guarantee of quality. These are:

**Lewis Spring & Axle Company**
**Frost Gear & Machine Company**
**Sparks-Withington Company**
**American Gear & Manufacturing Company**
**Hayes Wheel Company**

They are making—and we are marketing:

**Front and rear axles**
**Wheels**
**Springs**
**Transmission gear sets**
**Drop forgings**
**Steering and side lever control sets**
**Pressed metal parts—brake drums, ball cups, hub caps, etc., etc.**

The makers named above put the quality into their products.

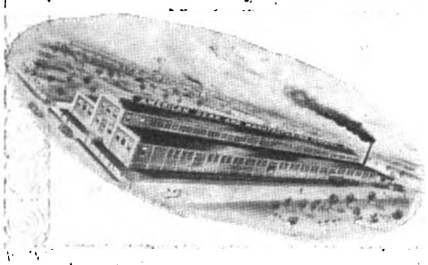
We guarantee deliveries as scheduled.

The combination offers more to the car builder, in the way of quality and delivery, than any single organization can possibly do.

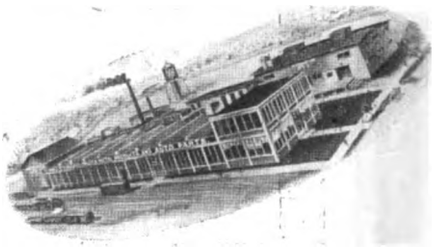
## THE AMERICAN DISTRIBUTING CO., 1030 S. Park St., Jackson, Mich.

**Sales Agents for**

LEWIS SPRING & AXLE CO. SPARKS-WITHINGTON CO. FROST GEAR & MACHINE CO.
HAYES WHEEL CO. AMERICAN GEAR & MANUFACTURING CO.







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POSTAL TELEGRAPH COMMERCIAL CABLES

NIGHT LETTERGRAM

The Postal Telegraph-Cable Company (Incorporated) transmits and delivers this night letter subject to the terms and conditions printed on the back hereof.
CLARENCE H. MACKAY, PRESIDENT.

RECEIVED AT
1947 BROADWAY
PHONE RIVERSIDE 5000

(WHERE ANY REPLY SHOULD BE SENT)

JUN 18 1910

121 MH GV 15 Nightletter

Memphis Tenn June 17

Warner Instrument Co

Bway - 63 St N-Y.

Cleaned up everything today with the Great Help of A Warner Auto Meter the best ever

Geo H Robertson 1015P



# Another Warner Auto-Meter Triumph

The lettergram reproduced above was received at our New York office the day after Robertson had lowered the track record at Memphis and followed that by winning the five-mile open event.

It is published simply as another indication of what the giants of the automobile racing field think of the Warner Auto-Meter.

They value the Auto-Meter not merely for its absolute reliability—though that is essential—but because that absolute accuracy continues under service tests which would speedily render an ordinary instrument worthless.

And motorists of experience everywhere hold the same view. Ask them.

*Write or call for catalog.*

The Warner Auto-Meter

**WARNER INSTRUMENT CO., 946 Wheeler Ave., Beloit, Wis.**

**BRANCHES:** Atlanta, 116 Edgewood Avenue; Boston, 925 Boylston Street; Buffalo, 720 Main Street; Chicago, 2420 Michigan Avenue; Cincinnati, 807 Main Street; Cleveland, 2062 Euclid Avenue; Denver, 1518 Broadway; Detroit, 870 Woodward Avenue; Indianapolis, 330-331 N. Illinois Street; Kansas City, 1613 Grand Avenue; Los Angeles, 748 S. Olive Street; New York, 1902 Broadway; Philadelphia, 302 N. Broad Street; Pittsburg, 5940 Kirkwood Street; San Francisco, 36-38 Van Ness Avenue; Seattle, 611 E. Pike Street; St. Louis, 3923 Olive Street.


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ONLY LONELY TELEGRAPH POLES indicated the famous old "Wire Road" from St. Louis to the southwest traversed by the Flanders "20" "Under Three Flags" car enroute to Mexico City.

YEARS AGO, ABOUT FIFTY YEARS AGO, pioneers in wagons journeyed this historic highway to the golden west. They called it the "Wire Road" because the government had made it the route of the first telegraph line which penetrated the southwest.

TODAY THE ROAD IS A THING OF THE PAST. Where it is not fenced in as part of a farm, it is brushgrown or bedrocked. An automobile had never been seen to pass over this once popular pathway because the cliffs, ruts, stumps, creeks and washouts to be encountered form incessant road perils.

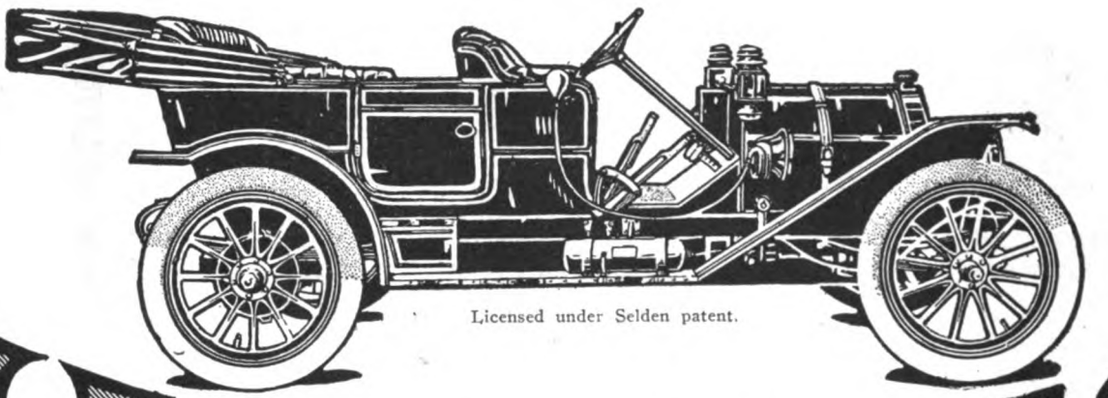
THE FLANDERS DID IT, HOWEVER! This sturdy twenty passed over rocks, ran through underbrush and forded creeks for ten days and when Driver Lane reached Dallas he wired that the motor was humming harmoniously and the car standing up as sound as when it began the trip.

WATCH THE CAR from Dallas to Mexico City do some more "show me" stunts.

**E-M-F COMPANY, Automobile Manufacturers, Detroit, Mich.**

Licensed under Selden patent.

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Licensed under Selden patent.

# HAYNES

## Permanent Satisfaction for $2,000

In buying an automobile the makers reputation is after all your only guarantee of satisfaction. The construction of any machine affords a manufacturer abundant opportunity to skimp a little in scores of places and still make a car that will run satisfactorily *at the start.*

In the Haynes the reputation of the manufacturer is positive assurance that there is nothing left off or out of the car that will decrease its capacity for steady, satisfactory service.

In buying a Haynes you get the experience of the oldest automobile manufacturer in the United States—a manufacturer who has never made anything but high-class cars—a manufacturer whose cars have won 41 First Prizes, medals or perfect scores in 41 consecutive contests—a record that cannot be duplicated by any other car, American or foreign.

The Haynes reputation for quality is of such value that it would be business suicide for us to turn out a car that was not in every way up to the Haynes standard. It is your guarantee of satisfaction.

There is no other car on the market like it.

Dealers who want to handle a car that satisfies—a car that stays sold—is not "traded" or "given as part payment"—should write promptly for exclusive agency proposition—providing we have no representative in your locality now.

**HAYNES AUTOMOBILE COMPANY**

**Station C, Kokomo, Ind.**

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# NEW HUDS

AN ANNOUNCEMENT was made last week of an important change in the Agency arrangements of the Hudson Motor Car Company. On January 1st the Hudson Company severed connections completely from any other organization, but the Agency contracts ran through until the present time. We are now ready to place some new agencies in unoccupied territory and in some instances are making a change in our previous representation.

In the ten days prior to June 30th four thousand six hundred Hudson cars were contracted for by dealers. One motor paper, through a typographical error last week said forty-six thousand, but our policy of moderate quantity production is so well known as to cause a smile at this extravagant statement. We only build Hudson cars in such quantities as will enable us to manufacture and test them out thoroughly, insuring the best possible quality in our product. In connection with this new Hudson Agency policy we have certain new territory open. In some old territory we desire new and more direct representation. Now is the time to get in your application. Next week may be too late. If you are really interested, the best thing to do is to get on the train and come and see us. The Hudson Line has become known as a money maker for the dealer, because it is up to date and the cars are good cars.

**HUDSON MOTOR CAR COM**

Licensed under

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# ON POLICY

The strength of our organization assures a desirable line year after year. The Hudson Roadster at $1000 and the Hudson Touring Car at $1150 are meeting with a tremendous sale throughout the entire country. We are turning out every month a good sized production of these cars and will do so all through the summer. In our fine large new plant we will continuously make better cars and at all times in sufficient quantity to meet promised delivery schedules.

All applications from dealers will necessarily be handled in turn where they are from the same territory. Therefore we suggest that you get in your application immediately. Here is the Hudson organization. Every man devotes his time exclusively to the Hudson Company. It is an assurance of the quality of the Hudson product and the satisfaction of Hudson owners.

## THE OFFICIALS OF THE HUDSON MOTOR CAR CO. ARE:

President—R. D. CHAPIN, formerly Treasurer and General Manager of The Chalmers-Detroit Motor Company.

Vice-President—H. E. COFFIN, formerly Vice-President of The Chalmers-Detroit Motor Company.

Secretary—F. O. BEZNER, formerly Secretary of The Chalmers-Detroit Motor Company.

Treasurer and General Manager—R. B. JACKSON, formerly General Manager of The E. R. Thomas Motor Company.

Sales Manager—E. C. MORSE, formerly Sales Manager of The E. R. Thomas Motor Company.

Advertising Manager—C. C. WINNINGHAM, formerly head of copy department, Lord & Thomas Advertising Agency, Chicago.

Chief Engineer—C. H. TAYLOR, formerly Engineer for De'Dietrich and Gobron-Brillie of France and E. R. Thomas Motor Company of Buffalo.

Purchasing Agent—W. J. McANEENY, formerly Purchasing Agent of The Chalmers-Detroit Motor Company.

Technical Manager—F. H. TREGO, formerly Secretary of The Chicago Motor Club, and one of America's best known Technical authorities.

Superintendent—J. F. RICHMAN, recently of the manufacturing department of the Maxwell-Briscoe Company.

# PANY, Detroit, Michigan

den patent

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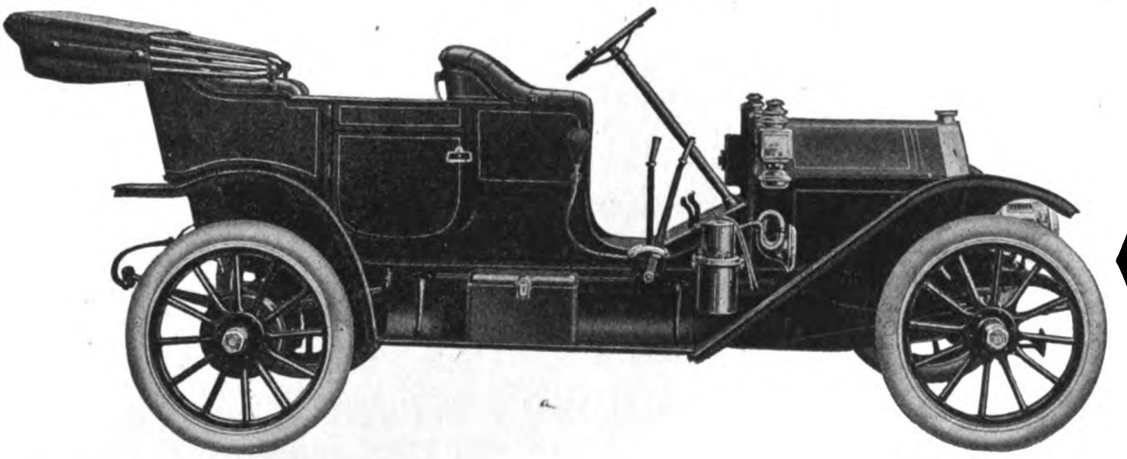
# The One All-Purpose Car

## As Proven in the Glidden Tour

The Great Western 30 Press Car finished the Glidden Tour in a blaze of glory, reaching Chicago last Thursday along with the best of them.

The remarkable performance of the Great Western in this contest was a surprise to Glidden Tour veterans. It has proven itself beyond a doubt the "One All-Purpose Car."

Over roads of indescribable roughness, through the heaviest swamps on the American Continent—up steep hills and down, leaving a trail of cars behind it with broken springs, axles and frames, the Great Western came through with a record that is the envy of many of the more pretentious cars—cars of double its price—cars that have been lauded for their strength, power and general resources.



So the Great Western has demonstrated in this contest the things that we set out to have it do—and that in the most thorough manner—under the most severe conditions, namely: its wonderfully powerful motor and remarkable strength of construction—its endurance, reliability, speed and all around efficiency.

### SOME NOTABLE ACHIEVEMENTS.

**Monday, June 13th**—Left Peru, Ind., overland for Cincinnati. Also entered and won hill climbing contest at Delphi, Ind.

**Tuesday, June 14th**—Left Cincinnati carrying New York and Chicago newspaper men. Arrived at Louisville with perfect record—helped several other cars out of bad holes.

**Wednesday, June 15th**—Terrific hard day's drive. Carried Chairman Butler, whose car suffered tire trouble, into Bowling Green after being made official car—brakes did wonderful work in rock strewn trail—arrived at Nashville in evening, absolutely no trouble.

Between Nashville and Memphis encountered vilest roads and worst swamps on the American Continent. Arrived Memphis, absolutely no mechanical trouble. Many other cars were badly crippled.

At Dallas, Texas car in fine condition—running with original air in two tires.

At Kansas City, Mo., it was the only Press Car, under its own power, to arrive with the contestants. Car in almost perfect condition.

Truly this is enough to prove that the Great Western 30 at $1,600 is an innovation—enough to excite your desire to know more about it—its exclusive features, improvements and refinements. Write today for full information, and open territory.

**GREAT WESTERN AUTOMOBILE CO., Peru, Ind.**

Great Western 30

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Johnny Aitken




Won biggest stock car event at Atlanta, May 7—200 miles for the Atlanta Automobile Association trophy.

Won biggest stock car event at Indianapolis Motor Speedway, May 27th—100 miles for the Prest-O-Lite trophy.

Followed this winning with 2 firsts, 5 seconds and 3 thirds at Indianapolis Motor Speedway, July 1, 2 and 4.

## National Sixty

Won the five mile free-for-all at Indianapolis, July 2, defeating Robertson in his Simplex and a strong field of other big cars.

Won second in the twenty-mile free-for-all July 4th; defeated only by special Benz.

Not only have National stock cars demonstrated their superiority in races time and again, but have won numerous endurance contests. The latest road victory was that of the National 40, driven by Charles Merz, in the strenuous three days' St. Louis reliability run, in which 30 cars started. Of five cars to finish the struggle over 452 miles of bad Missouri roads with perfect scores, the National received the lowest technical penalty, 3 points for fender bracket broken in hitting deep chuck hole. No car of equal size, beauty, power and service at near the National price of $2,500.

Tom Kincaide




**National Motor Vehicle Company**

Licensed under Selden patent.

**1007 E. 22nd Street** **INDIANAPOLIS, IND.**


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# 7th GLIDDEN TOUR




# Again the Victors on

**Mileage Cost, Wear Resistance, Absence of Defect, Freedom from Blowouts and a Notably Superior Capacity to Resist Shock.**

Never was the tour so terrific a battle with indescribably bad roads. And it is unfortunate that—

NOTE—For the reason that during a greater part of the tour only a few cars even approximated the schedule at all times—some cars running one to three days behind—tire observers were utterly unable to gather complete data on tire results. For this reason, it is impossible with truth and accuracy FOR ANY ONE to announce a fair average of tire costs, as we have heretofore done. We can only affirm Diamond tires made their customary excellent showing. They gave the best tire service of the contest. They equipped 14 of the 38 cars. Two cars changed to Diamond tires en route.

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# Confirms All Others

I want to express my appreciation of the service from Diamond tires on Premier No. 2. My only trouble was caused by punctures.

CHAS. BALLINGER.

Chalmers Pilot Car in Glidden Tour used Diamond tires. Their record on this tour is another evidence of their excellence.

RALPH ROBITAILLE.

Halladay Press Car, equipped with Diamond tires, followed confetti trail entire route carrying seven passengers. Original tires still on and in dandy condition. Good for five thousand more miles. Entirely satisfied with Diamond tires.

RUDOLPH J. FAAHA, Driver.

More than satisfied with service of Diamond Wrapped Tread tires on Falcar No. 106 in Glidden Tour. My left front tire has Cincinnati air and my other changes were all caused by cuts and punctures. On my sixty-four hour continuous drive from Dallas to Wichita I did not have to touch my tires.

O. F. VAN SICKLEN.

Columbia Pacemaker in Glidden Tour used Diamond tires. I had the heaviest loaded car in the tour and your tires gave me good service. Still have Hartford air in one tire.

J. J. CAFFREY.

For a run such as the 1910 Glidden Tour give me Diamond Wrapped Tread tires. I used them on Parry Car No. 105 over roads never intended for motoring. I did not believe any tire made would give me such good service.

GEO. NEFF.

The confetti car, Chalmers thirty, in the 1910 Glidden Tour ran on Diamond tires. Cuts due to the very bad roads caused the only tire changes necessary.

J. R. ANDE.

Cinco No. 15 went through Glidden Tour using only two extra casings on entire trip. The two new casings were not put on till after reaching Terrel, Tex., and were used on account of injuring old casings crossing Red River on railroad bridge, mile and three-quarters long, on the tires. The original Cincinnati air was still in two front tires at the finish.

W. DONNELLY,

It is fortunate I was able to secure Diamond tires on Glide No. 10 in the Glidden Tour. I do not believe any other tire would have given me such service over the worst roads in the world. I still have Peoria air in one tire and only changes were caused by punctures. I reached Nashville with a tube showing through cut in tread of tire. I changed the case; the tube is still in use.

FRED CASTLE, Driver.

Diamond Tires on Cole No. 6 in the Glidden Tour gave me remarkable service over the worst roads ever travelled by an auto. Only three tire changes and these occasioned by cuts. Tires showed no signs of wear.

HARRY KNIGHT.

Westcott No. 111 in Chicago trophy division of the Glidden Tour used Diamond Wrapped Tread tires. I congratulate you on their excellence.

C. C. BEVINGTON.

On Parry Car No. 9 Diamond tires gave excellent service in the 1910 Glidden Tour. I used 34x3½ tires all around and as these were the smallest tires used on any car I expected to have some trouble after seeing some of the roads. I still have on one casing and tube which has not been off the wheel and only changes I made were caused by punctures.

L. N. DULL.

Westcott Press Car in A. A. A. tour was equipped with Diamond tires because we believed them to be the best tires that would stand the trip. Our selection was justified by results.

JOHN GLOVER.

I used Diamond tires on Cole No. 104 in the Glidden Tour Chicago trophy division with very satisfactory results.

A. L. MARTIN.

**THE DIAMOND RUBBER CO., Akron, Ohio**


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The Overland

# See What $1,000 Buys in an Overland

The Overland

**Note what can be done by using automatic machinery—by enormous production—by devoting one factory to a single model—by saving the profits paid to makers of parts. See what a car you can now get for a little.**

The Overland has won the leading place in motordom by the use of modern methods. Over $3,000,000 has been invested to make Overland cars economically.

Each Overland factory is a model plant. There is not a lost motion—not a waste or repetition—from the raw materials to the finished car.

Each piece of machinery is adapted to making some part in the most exact, most rapid, most economical way.

That is how Overlands give so much for the money, and why they command such enormous sale. There is no skimping of materials, no slighting of workmanship. There are only up-to-date methods which have been perfected by the army of Overland experts.

## Automatic Machinery

Even the best engineers are amazed when they go through an Overland factory. Here are myriads of machines—some of them costing into the thousands of dollars—each designed for the purpose of saving a trifle on some particular part.

Here is a machine which enables one man to do the work of sixty men. Here is a machine which performs thirty operations in the time which another machine took for one.

Here are welding machines—electrical welders—which bring steel to white heat while one takes a breath.

Here are rows upon rows of automatic machines, doing the work of an army of experts, and giving such exactness as human hands never gave.

Many of these machines were designed in our own factory—invented by our own engineers. Some save but a little—some save a great deal. The sum of their savings—on the thousands of parts which enter into a car—has cut the cost of Overlands 20 per cent within the past year alone.

Some high-priced makers say their cars are handmade. Overlands are made—as watches are made—by exact automatic machinery.

## Other Economies

We devote one factory to one model alone. Every machine is adapted to some particular part. Every man is trained in one operation.

There is a separate factory for mud guards, a factory for radiators, an engine factory, a factory which makes nothing but screws. There is a crank-shaft factory—an enormous plant—built to save you $15 per car.

Then there is overhead expense which, in many a factory, amounts to 25 per cent of the cost of a car. In the Overland factory that expense is spread over an annual output of $24,000,000.

Those are the reasons why Overlands give so much more than the rest for the money.

## 25 h. p.—$1,000

This year we are selling a 25-horsepower car, with a 102-inch wheel base—for $1,000. Its possible speed is 50 miles an hour. It will carry four people up a 50 per cent grade, starting from standstill.

It is not under-sized, not under-powered, like the usual low-priced car. It is a car to be proud of—a car that meets any requirement.

It is a car of matchless simplicity. The operation is by pedal control. One goes forward or backward, fast or slow, by simply pushing pedals. A child can master the car in ten minutes. A young woman is now driving one of these cars from the Atlantic to the Pacific.

The car is almost trouble-proof. Many an owner has run it thousands of miles without even cleaning a spark plug. These cars have been used in the U. S. Mail service for over a year and a half. During all of that time they have made their daily trips, in all sorts of weather, without a moment's delay. Hundreds of men who could afford any car have chosen for their own use this $1,000 Overland.

## 40 h. p.—$1,250

The 40-horsepower Overlands—with 112-inch wheel base—sell for $1,250 to $1,500, according to style of body, etc. The Marion-Overland—the marvel of motordom—sells for $1,850.

All of these prices include gas lamps and magneto, and the Marion-Overland includes a Prest-O-Lite tank.

Please send us this coupon for full information. Then measure the Overlands by any competitor. You will see why the Overlands have so quickly become the most popular cars in existence.

We have dealers in 800 towns.

(M-62)

**The Willys-Overland Company**
**Toledo, Ohio**

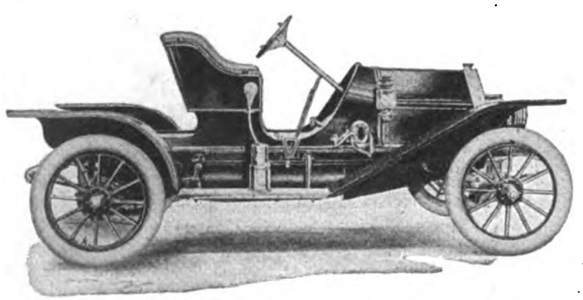
*Please send me information about*

*Passenger Cars* ☐ *Delivery Cars* ☐

*The Marion-Overlands* ☐

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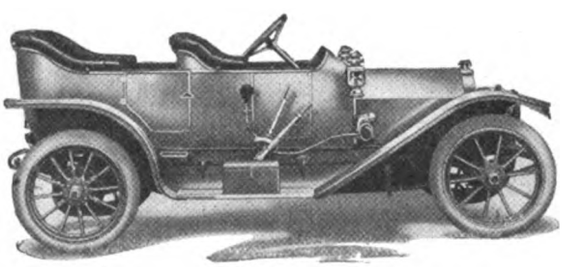
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The $1,000 Overland—25 horsepower—102-inch wheel base. Same car with single rumble seat, $1,050; with double rumble seat, $1,075; with complete toy tonneau, $1,100.

The Overland

Licensed Under Selden Patent



40-horsepower Overlands, with 112-inch wheel base, cost from $1,250 to $1,500. Marion-Overlands, $1,850. We fit these cars with all the latest styles of body, open or enclosed.



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THE MOTOR WORLD

Volume XXIV. New York, U. S. A., Thursday, July 7, 1910. No. 1

## HITTING BACK AT TIRE MAKERS

### Moto Bloc Wants Gilbert and Bennett Examined in Court—Scents a Price Combination and Conspiracy.

All of the aggressiveness apparently is not to be confined to the tire companies in the recently instituted campaign against dealers who are conspicuous in selling tires at cut prices, as retaliation by dealers whose supplies have been cut off is now a phase of the situation.

In addition to A. H. Kasner's effort to interest the Federal Government in prosecuting the tire makers, as told in last week's Motor World, an attack has been begun by Leon D. Kauffman, president of the Moto Bloc Import Co., New York City, with a view to uncovering the combination which he declares exists among the tire companies and which has its manifestation in the Dealers' Protective Association, which latter the tire companies are fathering and which is supplying the tire makers with lists of dealers to whom they should not sell.

Without bringing any direct action for damages or for prosecution as yet, Kauffmann has taken advantage of a little used part of the New York code, that permits one to ask for an examination of a party before trial to enable the intending complainant to draw his complaint in the proper form. On this line he has gone gunning for Joseph M. Gilbert, of the Continental Caoutchouc Co., and L. W. Bennett, who is in charge of the active work of the Dealers' Protective Association. His endeavor is to compel them to disclose the inside facts concerning the association, its records and minutes and those of the tire companies who are supporting it, including Diamond, Continental, Hartford, Morgan & Wright, G & J, Goodrich and Fisk.

Kauffmann obtained an order for the examination, but Gilbert and Bennett obtained an order for a stay, and the matter came before Judge Ford, of Part I of the New York Supreme Court yesterday (Wednesday), when both sides made their arguments. Judge Ford has reserved decision and has taken under consideration the question whether Gilbert and Bennett properly may be compelled to undergo the examination for which Kauffmann asks.

### Selden Suits Warming Up in Detroit.

Another of the Detroit defendants in the Selden suits instituted in that city has filed an answer in the United States court, the document being that of the Warren Motor Car Co., which, like the Abbott Motor Car Co., alleges many unpleasant things of the Association of Licensed Automobile Manufacturers. The Selden patent is alleged to be "invalid and void" because of its having been "surreptitiously and unjustly obtained." Conspiracy is charged, and it is alleged that the complainants are attempting to suppress competition and maintain a monopoly. Henry C. Walters is named as solicitor for the defendant.

Attorneys representing the Columbia Motor Car company and George B. Selden on Tuesday filed a bill enumerating 17 exceptions, taken to charges and allegations in the answer of the Abbott Motor Car company. These exceptions, covering nearly all the chief points of the Abbott company's answer, are based on alleged impertinence of the subject matter of the answer.

### Carhartt in a Taxicab Project.

The Carhartt Automobile Corporation, of Detroit, Mich., is to enter the taximeter cab field, and Hamilton Carhartt, the general manager of the company, has become interested with Brewster & Co., of New York City, who are automobile importers and agents, in a new taximeter cab company which is to establish soon a service in New York City. The cabs are to be made by the Carhartt company, and they will be operated under a different system from that at present in vogue. There will be flat rates for certain districts. Property on Broadway near Sixty-sixth street has been acquired for a garage.

## MORE NON-SKID INJUNCTIONS

### Weed Complains Against Five Additional Alleged Infringers—Pursues the Advantage of its Recent Victory.

Vigorously pushing the campaign of litigation for the establishment of its patent monopoly in non-skid chain devices, the Weed Chain Tire Grip Co., of New York City, has followed up its recent victory over the Excelsior Supply Co. and the Motor Appliances Co., by securing preliminary injunctions against five other concerns who are declared to be making or handling alleged infringing non-skids. The granting of the injunctions is based largely on the fact that in the Weed suit against Excelsior and Motor Appliances, the Parsons patent, No. 723,299, which is owned by the Weed company, was sustained by Judge Sanborn, on June 4, in the United States Circuit Court for the Northern District of Illinois, Eastern Division, Seventh Circuit. The patent was indicated by the court as being basic as applying to non-skid devices that are separate from the tire itself.

With the advantage and support of this decision, the company since has obtained preliminary injunctions, issued by Judge Sanborn, against the Garage Equipment Mfg. Co., of Milwaukee, Wis., makers of the Superior non-skid grip, in a suit pending against the Garage company in the United States Circuit Court at Milwaukee; against Leo Rabin, making the Reliable grip and also selling knock-down sets of grips under the name of the Auto Chain Repair Co., in an action in the United States Circuit Court at Chicago; and against the Pitts Anti-Skid Chain Co. and other makers of the Pitts grip, in the United States Circuit Court at Chicago. In New York preliminary injunctions have been granted by Judge Ward, of the United States Circuit Court, against William Wooster, selling the Victor grip, and against E. J. Edmond and others, selling the Zig-Zag grip.

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## BUYS $25,000 GARAGE TO GET $5

**Latter Was Real Money, However, While the Larger Sum was a Bogus Check—Hammond's Daring Visitor.**

Experience has made the automobile dealers quite wise and "canny" in dealing with the general run of flim-flammers, confidence men, false pretence artists and others who seek to obtain either money or goods by means of some more or less ingenious "plant" or bluff, but once in a while a new game is worked, and is in a measure successful because of its lack of old-time identification marks. Among the most recent and daring is that which has been "pulled off" by a visitor in Hammond, Ind., who went to the extent of buying a whole garage with a bogus check for $25,000, in order that he might borrow $5 from one of the garage employes—the "borrowing" being permanent.

Giving his name as John Kolb, the visitor put up at the best hotel, talked of his vast possessions and money interests, entertained prominent citizens with a haughty disregard for cost, and ordered all items included in his account, as he could "not be bothered with petty money matters." His supply of pocket money for tips and small change becoming low, he went to one of the prominent garages and announced his decision to buy the business outright just as it stood. The garage proprietor, not averse to a cash deal at his own price, named $25,000 as his figure, and with little or no objection or haggling the prosperous appearing stranger drew his check for this amount on the Independent Bank, of Philadelphia, and insisted on taking possession at once.

After being introduced as the new proprietor, he cocked his feet up on a desk and, puffing contemplatively on an unpaid-for cigar, looked the employes over as they went about their tasks. He finally hailed one of them, "touched" him for a five-spot on the ground that he happened to have left all his small change in his other trousers, and then sauntered out, to be seen no more. In due course his check for $25,000 came back marked "no good," and the man who had sold the garage once more took possession, thankful that after having been deceived so successfully he was not a cent the loser, except in reimbursing the $5 to his employe.

### One Hundred Members in M. A. M.

The Motor and Accessory Manufacturers this week in all likelihood will attain a membership roll of 100, as eight new members have been added, bringing the number to 92, and eight more are up for consideration at a meeting which occurs today (Thursday), with little indication that any of them will be rejected. The eight new members who have been accepted by the association are: National-Acme Mfg. Co., Cleveland, O., multiple spindle automatic screw machines, slotters, etc.; Roessler & Hasslacher Chemical Co., New York City, platinum rivets for all kinds of contact points for automobile use; Wetherill Finished Castings Co., Philadelphia, Pa., finished castings, aluminum and bronzes; Star Rubber Co., Akron, O., tires; Chicago Drop Forge & Foundry Co., Chicago, Ill., drop forgings; J. Ellwood Lee Co., Conshohocken, Pa., tires; Muncie Wheel Co., Muncie, Ind., wheels; Kelley-Racine Rubber Co., Racine, Wis., tires. The association has sanctioned both weeks of the New York show and of the Chicago show, so that the accessory makers belonging to the association are at liberty to exhibit both weeks at either show. The Boston show in March also has been sanctioned.

### To Make Wagons Using Unusual Motors.

Indianapolis, Ind., has a new company, Commercial Car Co., which is to build light delivery cars equipped with an engine having a radical cylinder-scavenging feature. The concern has been organized under Indiana laws, and has obtained the old plant of the Columbia Conserve Co., at South Meridian street and Belt railroad, while temporary offices are maintained at 202 Board of Trade Building. The officers are Charles C. Wedding, president and treasurer; W. Henry Harris, vice-president; E. H. Lear, secretary; S. S. Scott, chief engineer; E. S. Moehrlein, assistant chief engineer; E. K. Yeisley, general superintendent.

### Mercer Raises Price on New Models.

In outlining its plans for the forthcoming manufacturing season, the Mercer Automobile Co., Trenton, N. J., announces that the price of its new models will be advanced from $1,950 to $2,150; the list price including full lamp equipment, tools and repair kit. The car will be produced in three body styles—namely, five passenger touring, four passenger small tonneau and three passenger speedster with a single rumble seat.

### Winnigham to Manage Hudson Advertising.

C. C. Winnigham, of Chicago, Ill., has been appointed advertising manager of the Hudson Motor Car Co., of Detroit, Mich. For the past three years he has been a chief of the copy department of Lord & Thomas. He will assume his new duties in Detroit on the 20th inst.

### Sibley Takes Possession of New Plant.

The Sibley Motor Car Co., of Detroit, Mich., is moving into a new plant which has been provided for it at Solvay and Mackie streets. The company has raised its capitalization from $80,000 to $150,000 to accommodate its greatly expanded operations.

## BOND HOUSES NOW IN OPEN ENMITY

**Attack the Automobile Industry for Lessening Bond Sales—Ingenious Excuses for Avoiding New Purchases.**

Enmity toward the automobile business is being found to have its chief source and animus among the big bond houses and the country bankers of the West, whose reasons for aiming to check the investment of money in motor cars, as pointed out in the Motor World, are more selfish than altruistic. Opposition to the automobile movement by the bond houses has previously been somewhat indirect and "gum-shoe" in its character, but an even more antagonistic spirit now is being shown, in that the bond houses openly are taking a stand against the motor car.

As a means of "slamming" the automobile business, the buyers for bond houses who ordinarily are expected to bid on offerings of municipal bonds but who at present are not taking anything except rare bargains, are explaining to some of the Western cities their refusals to bid on the ground that the cities have "too many automobiles in proportion to population" and suggesting that the heavy purchase of motor cars by citizens actually makes a municipality's credit unsafe and its bonds of doubtful value. The city fathers in each case, however, appear to be more peeved than impressed by such statements.

Making reference to the present lack of demand for bonds, the New York bond house of Spencer Trask & Co. declares in a bulletin as follows:

"Our people, never of a particularly economical disposition, have been carried away by the automobile craze, and thousands are running cars who cannot afford to do so without mortgaging property, while thousands of others are now investing in motors who formerly invested in bonds. It is calculated that upward of $300,000,000 will be absorbed by the automobile industry this year, which represents the interest on about two-thirds of our entire prospective crops of the present year. This is a phase in our political economy which deserves more consideration than is usually given it."

### Change in Fiat's Boston Branch.

R. R. Ross, a veteran of the New England trade, has been appointed manager of the Boston branch of the Fiat company, having resigned from the Peerless branch in Boston to accept the new position. The Fiat branch is shortly to be moved from its present location at 885 Boylston street to a new building which is being erected for it at 839 Boylston street. Ross will appoint all sub-agencies in the New England territory.

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## ALMOST TWO MILLIONS DURING MAY

**Value of Exported American Cars Shows a Doubling in Three Months—Great Britain Buying Heavily.**

Export records are rising so fast that it is difficult to keep track of them. Hardly had the million-dollar-mark been passed in March, 1910, when April set a still higher figure, and now May shows a total of $1,700,000 worth of automobiles exported to foreign countries. In three months the figures were doubled. The average value of the cars exported decreased from $1,573 in May, 1909, to $1,387 in May, 1910, while their total number amounted to 1,075, as compared with 519 in May of the preceding year, an increase of over 100 per cent.

British North America still occupies the premier position among foreign buyers of American cars, and accounted for $664,406 worth, as against $281,806 in May, 1909. Great Britain, the next heaviest purchaser, took $487,266 worth, as compared with $281,180 in the same month of last year, a gain of 73.3 per cent. The third largest buyer was the division included under Other Europe, which increased its purchases from $36,037 to $173,802. The greatest comparative gain, however, was shown by Other Asia and Oceania, which took $49,400 worth. When compared with its purchases during May, 1909, which amounted to only $666 worth, the figures for May of this year show the extraordinary increase of 7,317 per cent. The British East Indies also showed remarkable gains, the $28 worth of parts sold to them in May, 1909, being increased to $15,055 in May, 1910.

During the eleven months ending May, 1910, every one of the divisions bought more American cars than in the corresponding period of the preceding year. The total figures for the eleven months of the fiscal year was $9,295,415, as against $4,876,336 for the previous corresponding period, while the cars numbered 5,942 as against 2,607. The record in detail follows:

| | May | | Eleven Months Ending May | | |
|---|---|---|---|---|---|
| Automobiles and parts of— | 1909 | 1910 | 1908 | 1909 | 1910 |
| Automobiles | 281,180 | $1,491,497 | $4,008,724 | $4,340,165 | $7,910,370 |
| Parts of | 60,427 | 208,603 | 558,401 | 536,171 | 1,385,036 |
| Exported to— | | | | | |
| United Kingdom | 281,180 | 487,266 | 1,503,606 | 1,375,815 | 2,038,842 |
| France | 145,308 | 101,549 | 587,890 | 483,037 | 584,404 |
| Germany | 24,657 | 72,442 | 126,270 | 94,602 | 227,235 |
| Italy | 25,958 | 29,633 | 237,596 | 214,994 | 319,451 |
| Other Europe | 36,037 | 173,802 | 132,998 | 270,834 | 420,889 |
| British North America | 281,806 | 664,406 | 809,836 | 1,405,079 | 3,721,862 |
| Mexico | 32,009 | 45,262 | 379,126 | 369,372 | 501,219 |
| West Indies and Bermuda | 20,386 | 12,166 | 241,365 | 248,786 | 406,553 |
| South America | 14,913 | 21,439 | 213,733 | 135,348 | 296,559 |
| British East Indies | 28 | 15,055 | 28,558 | 23,401 | 51,225 |
| British Australasia | 10,132 | 12,243 | 153,750 | 111,255 | 319,555 |
| Other Asia and Oceania | 666 | 49,400 | 123,249 | 89,196 | 258,973 |
| Africa | 3,422 | 1,537 | 7,288 | 36,412 | 92,876 |
| Other countries | 375 | 13,900 | 21,851 | 18,205 | 55,772 |
| Total | $876,877 | $1,700,100 | $4,567,125 | $4,876,336 | $9,295,415 |

**Agents Recover Damages from Buick.**

Controversies between automobile dealers and the manufacturers, over agency arrangements and disputed commissions, are comparatively few and far between when the great extent of the trade is considered, but that a dealer sometimes may resort successfully to the courts in demanding commissions and damages where the agency for a line has been taken from him abruptly is shown by the results of a suit in the United States court at Fort Dodge, Ia., in which the Fort Dodge Automobile Co., a retailing concern of that city, was successful in obtaining an award of damages against the Buick Motor Co. The case is considered as having developed a number of fine technical law points, and because of the thoroughness with which it was fought by both sides, has occupied the court's attention not only for many days last term but for a whole week during the present term.

It was shown by the complainant, the Fort Dodge Automobile Co., that the Buick company had made a contract with it but subsequently took the agency away and conferred it on another dealer. Damages for the plaintiff were assessed in the amount of $2,564. This amount is estimated as covering the commissions that the Fort Dodge company would have made if it had been permitted to sell the cars it had on hand and to pay for the advertising that it had done.

**Too Liberal to Automobile Concern.**

Opening its bank account with an overdraft, and following this with further drafts until it was necessary to give a note for $10,000 to the bank, was the remarkable arrangement existing between the Pullman Auto Car Co., of Portland, Ore., a retail agency for automobiles, and the Oregon Trust & Savings Co., of Portland, according to the facts developed in a suit by the bank receiver against the directors. When the bank failed, the automobile company also failed, and the receiver is taxing the bank officials with serious negligence and fault in being so liberal in the granting of credit to the automobile concern.

## WOULD ORGANIZE ALL GARAGES

**New York City's New Association has Ambitious Plans for National Movement —Evils of the Business.**

Enjoying a rapid growth and accretion of vigor during the two months that it has been in existence, the Garage Owners' Association, of New York City, which claims now to number 75 per cent. of the garages in the Metropolitan district in its membership, is reaching out to alliances with similar associations in other cities and is even contemplating the possibility of becoming a national organization. The association has effected a co-operative agreement with the Illinois Garage Owners' Association and has other connections in prospect.

In outlining the policies of the present and the plans for the future, the secretary, Charles D. Chase, explains the association's objects and purposes as follows:

"The principal object of the new organization is to ascertain the financial responsibility of all persons seeking storage, supplies, and repairs in garages, and to report promptly to its members the past history of each individual in connection with such and other transactions, if unduly slow of payments or unnecessarily fault finding as to items.

"In connection with the new organization is a bureau for collection of outstanding accounts, its representatives in their investigations for reports being in a position to make personal calls on delinquents of the various garages and obtain prompt remittances, or in case of necessity to sue on uncollectable accounts.

"In no other properly conducted business would credit of at least thirty days be allowed any customer without references and investigation, which if found unsatisfactory would result in either a refusal or curtailment of credit. Practically every garage in this city will accept at sight any automobile presented to them for storage or repairs, irrespective of the owner, and run an account averaging $50 to $100 per month, payable at the end of the month. It frequently happens that the automobile remains in the garage for one, perhaps two, months, when the owner decamps, leaving behind him an unpaid bill of from $100 to $200, which the garage owner must charge off.

"It is quite probable that a national association will be formed in the near future. This would be of great assistance to tourists and motorists making long runs, as they would be assured of proper charges for gasolene, oil, tires, and storage."

Representatives are to be sent throughout New York state during the next few months with a view to adding to the membership outside the metropolis.

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## THE WEEK'S INCORPORATIONS.

Niles, Mich.—Wood Garage & Auto Co., under Michigan laws, with $1,000 capital.

Detroit, Mich.—Bailey Auto Livery Co., under Michigan laws, with $1,000 capital.

Weehawken, N. J.—Hamilton Auto Co., under New Jersey laws, with $6,000 capital.

Detroit, Mich.—Bauer Steel Body Co., under Michigan laws, with $20,000 capital.

Alpena, Mich.—Alpena Motor Car Co., under Michigan laws, with $450,000 capital; to manufacture automobiles.

Hartford, Ct.—Hartford Garage Co., under Connecticut laws, with $10,000 capital; to deal in automobiles.

Carthage, Mo.—Owners' Garage Co., under Missouri laws, with $5,000 capital. Corporators—F. B. Clarke, W. S. Crane, J. E. Hall.

Dover, Del.—Northeastern Pennsylvania Motor Co., under Delaware laws, with $100,000 capital; to sell and manufacture motor vehicles.

Smyrna, Del.—Smyrna Automobile Co., under Delaware laws, with $2,500 capital. Corporators—J. E. Tucker, R. R. Tucker, H. D. Hudson.

Kingston, N. Y.—Ashokan Garage, under New York laws, with $10,000 capital; to conduct garage. Corporators—M. Deyo, J. Johnson, J. E. Snead.

Troy, N. Y.—Bolton-Myers Automobile & Truck Co., under New York laws, with $10,000 capital. Corporators—R. Bolton, G. T. Bolton, S. E. Myers.

Youngstown, Ohio—Standard Auto Sales Co., under Ohio laws, with $10,000 capital. Corporators—R. H. Anderson, A. T. Smith, H. M. Anderson, W. D. Ewer.

Cincinnati, O.—Cincinnati Taxicab Co., under Ohio laws, with $20,000 capital. Corporators—F. E. Burnett, A. L. Marshall, C. E. Everett, G. B. Johnson.

Anderson, Ind.—Forse Mfg. Co., under Indiana laws, with $6,500 capital; to manufacture speed indicators. Corporators—W. H. Forse, R. M. Allen, W. S. Ellis.

Dover, Del.—Auto Central Co. (Capital Trust Co.), under Delaware laws, with $25,000 capital. Corporators—J. G. McPherson, A. W. Southworth, D. P. Moore.

Detroit, Mich.—Globe Motor Co., under Michigan laws, with $50,000 capital; to manufacture and deal in automobiles. Corporators—Robert S. Milhollin and others.

Akron, O.—Alton Motor Accessory Co., under Ohio laws, with $50,000 capital; to manufacture and deal in automobile accessories. Corporators—Clyde S. Pelton and others.

Fort Plain, N. Y.—G. B. Gray Co., under New York laws, with $5,000 capital; to conduct an automobile garage. Corporators—H. B. Gray, Harold G. Gray, J. C. Jackson.

New York City, N. Y.—Gotham Motor Car Co., under New York laws, with $25,000 capital. Corporators—William Schuette, Robert W. Schuette, both of Douglas Manor, L. I.

Detroit, Mich.—Hows Commercial Car Co., under Michigan laws, with $60,000 capital. Corporators—A. J. Steiber, C. F. Howse, E. P. Newton, E. P. Miller, A. McClatchey.

Detroit, Mich.—Walker Motor Co., under Michigan laws, with $150,000 capital; to manufacture motor cars. Corporators—G. S. Grantlung, John E. Armstrong, Thomas E. Morehead.

Chicago, Ill.—Factory Auto Supply Co., under Illinois laws, with $10,000 capital; to deal in automobiles and accessories. Corporators—G. W. Stephens, W. A. Conover, Spencer Ward.

Little Rock, Ark.—Tedford Auto Co., under Arkansas laws, with $50,000 capital; to deal in automobiles and conduct a garage. Corporators—W. L. Tedford, J. A. Comer, J. B. Pearson.

Milwaukee, Wis.—Badger Tire Repair Co., under Wisconsin laws, with $5,000 capital; to operate garage and repair shop. Corporators—B. A. Massee, W. L. Baumbach, W. A. McMillan.

Wilmington, Del.—Pennsylvania Motor Car Co., under Delaware laws, with $200,000 capital; to manufacture and deal in automobiles. Corporators—C. L. Hearn, V. Atkinson, J. M. Frere.

New York City, N. Y.—Daimler Import Co., under New York laws, with $300,000 capital; to manufacture and deal in automobiles, etc. Corporators—A N. Josbera, C. E. Braine, E. A. Packard.

Chicago, Ill.—United States Auto Bumper Co., under Illinois laws, with $1,500 capital; to manufacture and deal in automobiles. Corporators—Allan M. McGregor, J. S. Matthews, W. J. Matthews.

New York City, N. Y.—Stearn Automobile Repair Co., under New York laws, with $500; to manufacture, buy and deal in automobiles. Corporators—George Martensen, Wm. T. Nicolai, Francis Fitch.

Wilmington, Del.—Pittsburg Auto Owners' Association, under Delaware laws, with $15,000 capital; co-operative and benevolent. Corporators—John Weiler, Wm. Crumlish, J. M. Frere.

Richmond, Va.—Jones Motor Car Co., Inc., under Virginia laws, with $25,000 maximum, $5,000 minimum capital; to operate a garage. Corporators—W. A. Jones, L. M. Jones, H. A. McCurdy.

New York City, N. Y.—Munsing Motor Co., under New York laws, with $500,000 capital; to manufacture automobiles, motor boats, etc. Corporators—W. H. Bursmith, M. T. Westcott, F. W. Mitchell.

Chicago, Ill.—Monsen Auto Garage, under Illinois laws, with $10,000 capital; to manufacture and deal in motors, vehicles, and machinery. Corporators—Wm. Brown, Wm. Sherman Hay, A. Wright.

Gates, N. Y.—Hazard Motor Mfg. Co., under New York laws, with $400,000 capital; to manufacture automobile gas engines and other machinery. Corporators—E. C. Hazard, G. E. Hazard, J. F. Alden.

New York City, N. Y.—North Side Coach & Auto Co., under New York laws, with $150,000 capital; to maintain a livery stable, rent automobiles, etc. Corporators—J. J. Fox, W. J. Boyd, F. A. Orpp.

Indianapolis, Ind.—Midway Automobile Co., under Indiana laws, with $3,000 capital; to deal in automobiles and accessories. Corporators—O. G. Thomas, C. D. Paidrick, F. L. Wiltshire, A. D. Thomas.

Chicago, Ill.—Inland Motor Parts Co., under Illinois laws, with $2,500 capital; to manufacture and deal in motors, motor vehicles and accessories. Corporators—F. M. Lindgren, H. W. Carter, C. A. Garner.

Troy, N. Y.—American Motor Car Manufacturers' Exhibit Association, under New York laws, with $10,000 capital; to give trade exhibitions. Corporators—George C. Lecomte, Frederick C. Claessens, Wm. A. Dunne.

New York City, N. Y.—Royal Sight Seeing Co., under New York laws, with $5,000 capital; to manufacture and operate automobiles, carriages, passenger boats, etc. Corporators—D. Spielberg, H. Novidor, A. Katz.

Connersville, Ind.—Lexington Motor Car Co., under Indiana laws, with $50,000 capital; to manufacture automobiles. Corporators—F. N. Coats, E. D. Johnson, A. E. Leiter, J. C. Moore, H. S. Johnson, V. K. Dodge, G. D. Wilson.

St. Louis, Mo.—American Welding & Automobile Repairing Co., under Missouri laws, with $5,000 capital, one-half of which is paid in; to manufacture and deal in automobiles, etc. Corporators—August W. Mewes, H. George Donigan, F. Essen.

### Increases and Decreases of Capital.

Lansing, Mich.—Capital Auto Co. increases capital from $10,000 to $25,000.

Detroit, Mich.—Sibley Motor Car Co. increases capital from $80,000 to $150,000.

Galion, Ohio—Fetzer Automobile Co. decreases capital from $125,000 to $25,000.

Detroit, Mich.—Northway Motor & Mfg. Co. increases capital from $250,000 to $1,000,000.

### Jennings Likely to Go to Ecorse.

Ecorse, Mich., is listening to a proposition made by the Jennings Motor Car Co., a concern recently organized by Detroit men and which is seeking inducements from various of the smaller Michigan cities. The location of the plant in Ecorse is promised, provided the town's officials and citizens will make a number of concessions that are asked for.

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## IN THE RETAIL WORLD.

The W. L. Hibbard Motor Car Co., of Milwaukee, Wis., has filed notice of dissolution.

Smith & Rayl is the style of a new firm in Abington, Ill. Richmond automobiles are to be featured.

P. H. Kelly is building a three story garage at 35th street and Midvale avenue, Philadelphia, Pa. It will cost about $25,000.

Fire destroyed the garage on North Bolivar street, Marshall, Tex. The building was owned and occupied by E. M. Stanley.

The Eaton-Willis Automobile Co., Hutchinson, Kan., has opened a garage in the Odd Fellows' Temple. Studebaker cars are shown.

Harry Lang, of Alton, N. H., has entered the automobile business and opened a garage in the old power house. He will handle a full line of accessories.

The Price Talking Machine Co. has gone into the automobile business, and opened salesrooms in Halsey street, Newark, N. J. Berkshire cars will be featured.

The Shaffer Mfg. Co., Baltimore, Md., is erecting a two story brick garage and repair shop at 408-410 North Calvert street. The building will be 110x31 feet.

The Vandagrift Auto Car Co., Louisville, Ky., has certified to a change of name to Vandagrift Motor Car Co. The company conducts a garage and rental service.

The Hess-Menzie Auto Co., Portland, Ore., has changed its name to Menzie-Dubois Auto Co. The necessary certificate has been filed with the state authorities.

E. Bacon, director of the Logan (Utah) Automobile Club, is supervising the erection of a new garage for club members and passing tourists. The new structure is 60x 75 feet.

Fred Stewart, proprietor of the Ford Livery Co., McAllen, Tex., has installed an automobile repair department in connection with his stable, and will do general repair work.

Ground has been broken for the garage of the Seattle Taxicab Co., Ninth avenue, between Pike and Pine streets, Seattle, Wash. The structure is to be of brick and will cost $25,000.

Work has commenced on the new garage of George R. Dana, at the corner of East Merrimack and Stackpole streets, Lowell, Mass. It is a brick structure, 107x72 feet, and will cost $7,000.

Fred T. Kitt has added four stories of reinforced concrete to the rear of his garage on M street, Sacramento, Cal. The new structure will house Columbus, Baker and Waverly electrics.

Seven months after the old garage had been destroyed by fire the new Currier garage, in Ipswich, Mass., has been opened to the motoring public. The new structure is of brick and practically fireproof.

Frank Starbuck, once famous as a bicycle racer, has entered the automobile business and become the owner of the Starbuck arage at 5223-25 Market street, Philadelphia, Pa. He will display DeTamble cars.

Greenville, Tex., is to have a new garage "in its midst." C. B. Jones, W. B. Wise, H. W. Williams and W. B. Hindman will be the owners of the building, which is to be 54x100 feet, of reinforced concrete and brick.

H. L. Keats, of the Keats Automobile Co., Portland, Ore., is now in the East arranging his accounts for next season; he will remain here several weeks. He is accompanied by Manager Wallace of his Seattle branch.

Under the style the Normandin-Campen Carriage Co., a new firm has been formed at San Jose, Cal. The concern will handle the Hudson, Chalmers-Detroit, Lozier, Thomas and Wilcox gasolene cars and the Babcock electrics.

Sims & Kincaid have opened a motor car livery in the Arnold Automobile Co.'s garage on South Lawrence avenue, Wichita, Kan. Six automobiles form the nucleus, around which the young men expect to build up a big business.

Plans just have been filed for a concrete block garage to be erected at East Seventh street and Hawthorne avenue, Portland, Ore. H. N. Mathelsen is the owner of the proposed garage, which will be 100x50 feet and will cost $25,000.

Pleasantville, N. J., is to have another garage on Washington avenue, west of the shore road. Louis Gentmever is constructing it. The building will be two stories high, of brick, with concrete floors, and is to cost $6,280.

The Woolston Co., of East Orange, N. J., has moved into its new garage at the corner of Grove street and Central avenue. County Clerk John Woolston, who is the manager of the company, has been the agent for Oakland cars.

A certificate of purchase of the stock of the Connecticut Motor Car Co., Bridgeport, Conn., by the Motor Car Co. of Connecticut, Bridgeport, Conn., has been filed with the Secretary of State. The action is part of a reorganization plan.

The Curtis Automobile Co. has taken possession of its new home at 142-144 Eighth street, Milwaukee, Wis., having moved there from 180 Fifth street. The new building is 50 x 150 feet, two stories high and built of brick and concrete.

F. W. Hawley, who conducted an automobile garage at St. Cloud, Minn., has sold the business to Archie Hogan and Peter Minette. The new owners will take possession at once and conduct the establishment under the style the Hogan-Minette Auto Co.

The Carpenter Automobile Co. is the style of a new concern which has taken over the business of the L. P. Dorsett Co., with salesrooms at Seventeenth and U streets northwest, Washington, D. C.; Croxton-Keeton cars will be featured by the new company.

A fire said to have been caused by spontaneous combustion started in the paint shop on the upper floor of the Joseph Pierotti & Co. wagon shop building at the orner of Third and Webster streets, Oakland, Cal., destroying the entire upper floors. The garage on the ground floor was badly damaged.

The Auto Co., of Houston, Texas, was dissolved on June 23, and a new charter taken out immediately after the dissolution. The action was taken in order to eliminate several of the old directors of the company. The corporators are: Harvey T. D. Wilson, Harry Holmes and Thomas O'Neal. The capital of the company is $10,000.

The Hackett Motor Car Co., of Paterson, N. J., doing an automobile express business between that place and New York City, has gone into the hands of a receiver, Judge Cross, of the United States Circuit Court, having appointed Harris J. Westerhoff to take charge. The liabilities are estimated at $70,000 and the assets at $18,000.

Henceforth the Hartford Garage Co. will conduct the Miner Garage in Hartford, Conn., the selling of cars being continued by the Miner Garage as heretofore. The new company is incorporated with a capital stock of $10,000, with E. Y. Judd as president and F. C. Coon as secretary, and will maintain the accessory and garage department of the business.

Fred S. Cornell, automobile dealer at 1158 South Main street, Los Angeles, Cal., has filed a voluntary petition in bankruptcy. His employe, Carl Fisher, ran down and killed an aged woman a short time ago, and the heavy cost of the accident to Cornell as well as the notoriety attached to the case is alleged to have crippled the business. Liabilities are $3,649, and assets $2,525.

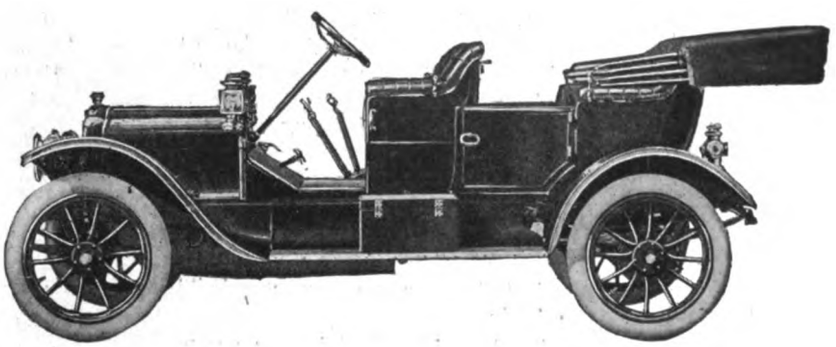
According to plans just made public, New York City is to have still another big building devoted exclusively to the automobile business. The new structure, which will be called George Ehret Automobile Industry Building, is to be of reinforced concrete. It will cover the valuable plot at the corner of Broadway, Columbus Circle, 58th and 59th streets, and will cost at least $120,000.

Disagreement and quarrels between James J. O'Toole, Benjamin Anderson and William B. Murray, operating under the style the Southern Automobile Sales Co., Washington, D. C., led to proceedings in equity instituted by O'Toole against his partners. O'Toole charges that he was refused access to the books of the firm, and that he therefore is ignorant of the condition of its assets.

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# WHITE GASOLINE CARS

## for 1911



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**PRICE**—moderate, therefore, easy to buy.

**DESIGN**—includes many advanced features not found in any other American car.

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## Illuminating the Number Tag.

It is greatly to be hoped that the announcement of new and forthcoming models will reveal a disposition on the part of the manufacturers to consider the real need of the motorist in the construction and arrangement of the tail light. Although it is a requirement of practically all state automobile laws that the license number tag shall be placed so that a white light from the tail lamp shall shine upon it, few car makers, if any, have made direct provision to that end up to this time. Save for providing as standard equipment a tail lamp of the kind specified by the law, they have left it pretty much to the individual owner to solve the problem of placing the tag in such a position that it will get the full benefit of the white rays of light. That the police have not taken the opportunity of making arrests for non-conformity in this respect, is one of the unexplained circumstances surrounding the life of the automobile owner and the professional chauffeur.

With the outcroppings of new models, however, it appears that this question has been given a certain amount of thought already. At least one maker has installed the tail light in a substantial mounting on one of the rear mud guards, while upon the other a place is provided for mounting the number tag. Such is the arrangement that plenty of light will shine on the number, while the position of both the lamp and the number on the guards insures them against that dusty obscurity which, by some motorists, is regarded as a not undesirable accident. In other instances, too, it is to be observed that the placing of the rear lamp, as well as the nature of the equipment itself, bespeaks a better appreciation of what really is necessary in this respect than used to prevail.

The need of special provision for the mounting of the number tag is greater than it used to be since it has become a provision of the laws of several states that only one number shall be carried at a time. That, together with the probable enforcement of the provision requiring the illumination of the number at night, makes it highly desirable that the motorist be given every facility for the rapid and convenient interchange of numbers, as well as for conforming to the law in other respects. There are numerous ways in which interchangeable and illuminated plates may be provided for at small cost to the manufacturer; several devices of the transparency order already are available, others may be contrived in all likelihood without infringing on protected rights, while there still remain a number of ways in which the ordinary tag may be carried by day and lighted by night which are so simple that the only wonder is they never have been put into effect.

## Problems of the Emergency Motor Car.

Motor vehicles as applied to municipal service have reached just that critical stage where by careful handling ground may be gained in rapid strides, or where heedlessness or, more properly, lack of appreciation of what is involved, may result in serious loss of position. Throughout the country ambulances, police patrols and fire apparatus are being motor equipped tentatively. In a large proportion of cases, lack of information to the contrary leads to the supposition that it is affording good satisfaction on a service basis; whether economically from the financial standpoint or not, is not of so great present moment. The point is that everywhere that the automobile is put to the severe and exacting test required of vehicles in municipal emergency work, it is of vast importance that it shall succeed.

One difficulty encountered arises from the inherent nature of the city or town administration. It is necessary to turn the machine over to the tender mercies of an operator who not only is perfectly familiar with local traffic conditions, who knows his road map, but also one who is a member of the organization or department employing the vehicle. A fire engine must be driven by a fireman, a police patrol by a member of the uniformed force, and, preferably, an ambulance by a man who is familiar with emergency hospital work. Under the circumstances, it is not always a simple matter to combine in a candidate otherwise perfectly satisfactory, that skill of hand and soundness of judgment which make a good chauffeur.

Sometimes, of course, it is possible to arrange for the prospective operator of such a machine to visit the factory and go through a systematic course of training. It should be so invariably, but it is not invariably so. Where the factory course is limited, or where it is necessary to pick up an untrained local man, the manufacturer of the car suffers a much greater risk than he does when he turns over a pleasure car to the tender mercies of a green chauffeur or an unsophisticated owner. There are fewer opportunities to counterbalance such risks by putting other cars into the hands of reliable drivers, and the work is so much more exacting that the chances of trouble are magnified exceedingly. It is not merely a question of a second or a third sale in a given locality that is involved; it is the reputation of the emergency motor car that is on trial.

Manufacturers and dealers who are seeking this by no means uninviting class of trade have good cause for vigilance in the arrangements which are made for the maintenance and operation of their product. As compared with the market for pleasure cars, the demand, of course, is very limited. At the same time, it is a line promising good reward and one well worth going after, as one manufacturer and another already have found out. Only, as in all commercial ventures, it is necessary to spare no expense

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in building for a sound reputation. Thus early in the history of trade, it is the reputation of an industry quite as much as that of an individual maker which is at stake.

**Putting Chauffeurs on a Cost Basis.**

Like all other questions which the automobile industry has given rise to, the chauffeur problem gradually is undergoing a change. Once the motorist was troubled chiefly because he found himself subject to a system of graft which brought the already large operating costs of his machine to almost prohibitive proportions. But the flooding of the driver-labor market with the new-fledged products of a score or two of training institutions rejoicing in the name of schools, the efflux of ambitious young mechanics from the factories and the inevitable results of competition and enlightment have reduced that evil to a point where it no longer counts in the same way it used to.

The difficulty of acquiring a good driver is not rendered as simple as might be expected under the circumstances, however.

It is possible to obtain a very good, prudent and reliable driver-mechanic at the standard rate of wage; it also is possible to obtain an inexperienced man, or one who is lacking in certain qualifications, at wages running down to what a second rate stenographer would demand. In either of the extreme cases there are compensating circumstances to be considered. It is to be expected that the high-priced driver will keep the car in such good order and run it so carefully that the upkeep expense will be exceedingly small; while it is equally to be expected that the low-priced man will develop a facility for running up repair bills that will be almost staggering in its monetary consequences.

Probably were a careful balance to be struck, it would be found that, lumping together the cost of upkeep and the chauffeur's wage, a reasonably fixed figure for maintenance per car mile would develop with any given make and model of machine. In other words, if you pay more for the driver your repair bills are likely to be proportionately less for every mile traveled, the cost of such repairs increasing proportionately with the decrease in the chauffeur's attainments as measured in terms of a lower rate of pay. Motorists who are considering the chauffeur problem with a view to making a change or of getting a man for a newly purchased car, should take this point into consideration.

The real measure of the driver's worth is not his ability to drive; anybody can drive a car presentably after a brief period of careful tuition. His value as an investment, so to speak, is measured in terms of his output, and the chauffeur's product is car miles. If the total cost per car mile is reasonably low, taking into account all contingent items, then the chauffeur is worth having, no matter what his wages happen to be. If the cost per mile is high, as compared with that developed by the owners of similar machines operated in the same territory, it may be taken for granted that that particular man is not a good investment, and also regardless of his wage. The time is coming when motorists in engaging a driver will lay due stress on this point; when the economical driver will be considered the desirable man, whether he is addicted to baths and cigarettes or whether he is not a human ornament. One way to encourage the good driver is to offer premiums for economical operation; another is to fire him if the cost runs too high.

## COMING EVENTS

July 7-9, Buffalo, N. Y.—Buffalo Automobile Trade Association's race meet.

July 8-9, Louisville, Ky.—Track meet at Churchill Downs; Homer George, promoter.

July 9, Plainfield, N. J.—Plainfield Automobile Club's second annual hill climb on Johnston's Drive, Watchung mountain.

July 9, Morrison, Col.—Town of Morrison's hill climb on Mount Morrison.

July 10, Cincinnati, O.—Track meet at Latonia Park; W. H. Wellman, promoter.

July 11, Plainfield, N. J.—Plainfield Automobile Club's annual hill climb.

July 11-15, Aberdeen, Wash.—Aberdeen Automobile Club's races on Cohasset Beach.

July 12, Charleston, S. C.—Charleston Automobile Club's beach races at Isle of Palms.

July 13, Winnipeg, Man.—Winnipeg Automobile Club-Winnipeg Motor Trades Association joint racemeet.

July 14, Chicago, Ill.—Chicago Automobile Trade Association's Orphans' Day.

July 14, Newport, Ind.—Newport Motor Club's second annual hillclimb.

July 15-16, Riverhead, L. I.—Motor Contest Association's second Long Island Stock Car Derby.

July 15-16, Dayton, O.—Automobile Club of Dayton's race meet.

July 15-19, St. Paul, Minn.—Minnesota State Automobile Association's second annual reliability tour for "Dispatch" trophy.

July 16-18, New York City—Motor Contest Association's reliability tour to Catskill, N. Y., and hill climb on Clove mountain.

July 18-22, Milwaukee, Wis.—Wisconsin Automobile Association's first annual endurance test for "Milwaukee Sentinel" trophy.

July 19-20, Brooklyn, N. Y.—Brooklyn Motor Vehicle Dealers' Association's 200 miles reliability contest on Long Island.

July 22-27, St. Paul, Minn.—Minnesota State Automobile Association's second annual reliability run for the "Dispatch" trophy; 660 miles.

July 24, New Braunfels, Tex.—San Antonio Automobile Club's hill climb.

July 28-29, Chicago, Ill.—Chicago Automobile Club-Chicago Athletic Club third annual interclub reliability team match.

July 30, Salt Lake City, Utah—Salt Lake "Telegram's" third annual hill climb.

July 30, Wildwood, N. J.—North Wildwood Automobile Club's race meet on Wildwood Speedway.

August 1, Minneapolis, Minn.—Minneapolis Automobile Club's reliability run.

August 3-5, Galveston, Tex.—Galveston Automobile Club's beach races.

August 6, Philadelphia, Pa.—Quaker City Motor Club's race meet at Point Breeze track.

August 6, Wildwood, N. J.—North Wildwood Automobile Club's beach race meet on Ocean drive.

August 12-13, Philadelphia, Pa.—Philadelphia "North American's" reliability run.

August 12-13, Indianapolis, Ind.—First 24 hours race on Indianapolis Motor Speedway.

August 15, Algonquin, Ill.—Chicago Motor Club's annual twin hill climb.

August 15-19—Start of second annual Munsey Historical Tour from Philadelphia, and terminating at Washington, D. C.; 1,700 miles.

August 17, Cheyenne, Wyo.—Cheyenne Motor Club's race meet on motordrome.

August 26-27, Elgin, Ill.—Chicago Motor Club's road race and speed carnival.

August 31, Minneapolis, Minn.—Minnesota State Automobile Association's reliability run.

September 18, Los Angeles, Cal.—Annual road race up Mount Baldy.

November 10-13, San Antonio, Texas—San Antonio Automobile Club's races at International Fair grounds.

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# PROTEST MARKS FINISH OF THE GLIDDEN

## Chalmers Files Objection to Award of Chief Prize to Premier, the Winner on the Returns—Moline Gets Chicago Trophy Without Question—Technical Examination Does Not Change Standing—Reception in Chicago and Final Scores.

Chicago, July 2.—The result of the technical examination of the 11 cars that survived the most punishing of all Glidden tours did not in any way serve to alter the positions of the winners as already indicated by the road scores. The Premier "Six," driven by Ray McNamara, wins the Glidden trophy for touring cars, and the Moline, driven by C. H. VanDervoort, wins the Chicago trophy for roadsters and runabouts. The Chalmers representatives have filed a protest against the Premier, the apparent winner of the Glidden trophy. It is objected that the Premier has a special pump near the driver's seat which was used every few miles to inject oil in the crank case. This, the objectors say, is not part of the regular equipment of Premier cars, and the Premier entrants therefore are not stock cars, a violation of the rules. The Chalmers representatives say that they have documentary proof from Premier owners that they have had to pay $50 extra to have the special oil pumps on their cars. The Premier representatives state that 22 per cent. of their output has been equipped with these pumps.

The final score, including that of the technical examination, and the order of finish, is as follows:

FOR THE GLIDDEN TROPHY.

| | | | Road Penalties | | | Brakes | | Final Penalizations | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. | Car. | Driver. | Control | Tech. | Sub Total | Foot | Hand | Spring Sag | Clutch | Axles | Other Details | Grand Total |
| 1 | Premier | Ray McNamara | 0 | 9 | 9 | 16 | 48 | 0 | 0 | 5 | 15 | 93 |
| 5 | Chalmers | Wm. Bolger | 0 | 39 | 39 | 0 | 36 | 0 | 0 | 0 | 41 | 116 |
| 7 | Maxwell | H. E. Walls | 0 | 59 | 59 | 0 | 33 | 0 | 0 | 35 | 81 | 208 |
| 2 | Premier | Chas. L. Ballinger | 220 | 500 | 720 | 15 | 41 | 0 | 0 | 10 | 20 | 806 |
| 10 | Glide | Fred Castle | 785 | 1,070 | 1,855 | 73 | 37 | 0 | 0 | 40 | 242 | 2,247 |
| 15 | Cino | Walter Donnelly | 977 | 1,168 | 2,145 | 38 | 142 | 5 | 0 | 0 | 84 | 2,414 |
| | | FOR THE CHICAGO TROPHY. | | | | | | | | | | |
| 100 | Moline | C. H. VanDervoort | 0 | 12 | 12 | 0 | 0 | 0 | 0 | 0 | 7 | 19 |
| 107 | Maxwell | Jesse Illingworth | 0 | 43 | 43 | 0 | 0 | 0 | 0 | 0 | 8 | 51 |
| 102 | Moline | F. E. Salisbury | 25 | 37 | 62 | 0 | 1 | 0 | 0 | 0 | 2 | 65 |
| 101 | Moline | J. A. Wicke | 90 | 388 | 478 | 0 | 0 | 0 | 0 | 0 | 3 | 481 |
| 103 | Lexington | J. C. Moore | 508 | 874 | 1,382 | 0 | 133 | 0 | 5 | 0 | 522 | 2,042 |

Of the 26 cars that started, of course only the 11 that survived underwent the technical examination, the result of which is of unsual interest as showing the damage done by the frightful road conditions encountered. In addition to the brakes, this is revealed by the column "Other Causes" in the foregoing table, the causes in detail as listed by the technical committee which conducted the final examination in Chicago being as follows:

Car No. 1, Premier, Ray MacNamara.

Front wheels, spindles, loose, 10 points; water connection, leaking, 1 point; engine hanger bolt broken, 2 points; spring clips loose, 2 points. Total, 15.

Car No. 2, Premier, C. L. Ballinger.

Cylinder head plate, leaking, 2 points; spring leaf broken, right rear, 5 points; spring leaf broken, left rear, 5 points; ignition shaft loose, 1 point; hub flange bolt, broken, 1 point; rear reach rods on foot brakes, bent, 4 points; rear reach rod lever on foot brakes, bent, 2 points. Total, 20.

Car No. 5, Chalmers, Wm. Bolger.

Fender iron broken, 6 points; steering gear loose on frame, 1 point; muffler cutout wire broken, 1 point; body bolt lost, 2 points; body bolt loose, 1 point; shackle bracket, loose, 2 points; ignition terminal broken, 2 points; tie rod bent, 25 points. Total, 41.

Car No. 7, Maxwell, H. E. Walls.

Bumper plate lost, 2 points; four spring clips loose, 4 points; spring leaf broken, right front, 5 points; grease cup lost, 2 points; front wheel loose, 5 points; steering yoke pin loose, 5 points; defective brake, 50 points; body bolt loose, 1 point; fender bracket loose, 2 points; front wheel bearing loose, 5 points. Total, 81.

Car No. 10, Glide, Fred Castle.

Spring leaf broken, right rear, 5 points; muffler loose, 2 points; rear axle housing parted, 150 points; fan belt lost, 2 points; fan pulley, broken flange, 25 points; radiator, leaky connection, 1 point; spring leaf broken, left front, 5 points; three spring straps lost, 3 points; front wheel, loose, left, 5 points; front wheel, spokes loose, left, 5 points; front wheel, loose, right, 5 points; front wheel, spokes loose, right, 5 points; fender broken, 5 points; step bracket, broken, 6 points; steering column crank, loose, 15 points. Total, 242.

Car No. 15, Cino, Walter Donnelly.

Three grease cups lost, 6 points; rear spring bracket, bent, 15 points; pressure pipe on gasolene feed line, loose, 1 point; radiator leaky, 20 points; engine bolts, loose, 2 points; front wheels, both loose, 10 points; fender loose, 2 points; muffler, final exhaust pipe loose, 1 point; two fender irons broken, 12 points; spring leaf broken, right front, 5 points; spring leaf broken, right rear, 5 points; spring leaf broken, left rear, 5 points. Total, 84.

Car No. 100, Moline, C. H. VanDervoort.

Front wheel bearing, loose, 5 points; fan blades, impaired, 2 points. Total, 7.

Car No. 101, Moline, J. A. Wicke.

Gasolene leak, 1 point; steering column, finishing plate on dash, lost, 2 points. Total, 3.

Car No. 102, Moline, F. G. Salisbury.

Muffler nut, lost, 1 point; steering column sleeve loose, 1 point. Total, 2.

Car No. 103, Lexington, J. C. Moore.

Ball and socket timer connection broken, 5 points; both steering yoke bearings, loose, 10 points; wheel bearing, loose, 5 points; grease cup, lost, 2 points; frame side member, broken, 500 points. Total, 522.

Car No. 107, Maxwell, J. Illingsworth.

Spring clip, loose, 1 point; nut on step bracket bolt, lost, 2 points; front union on muffler, loose, 1 point; rear fender screw, lost, 2 points; fant belt, lost, 2 points. Total, 8.

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# How the Glidden Survivors and Near-Survivors Finished in Chicago

Chicago, June 30.—Chicago turned out this afternoon with a brass band and a string of cars a mile long to welcome the Glidden tour and escort the remnants to the final control. Jackson boulevard was lined with people who ran the gamut of emotion, from tears to laughter, at the Gliddenites. To the pensive, the little string of cars followed by the longer string of the escort suggested a funeral or a G. A. R. parade. The dusty survivors coughed and wheezed. Here was a car with the springs smashed, two rear tires frazzled and flat and its axles bent until the wheels described snake tracks on the asphalt as they wobbled down the street; there was another with a right fender shorn off, looking like the loser in a dog-fight. Yonder was one whose cylinders were counting: "One-two-three-chug, one-two-three-chug" as the one-lunger ambled consumptively along. Each and all showed marks of the fray, of journeying at 20 miles an hour over the prehistoric pike from Louisville to Nashville, of wading through the treacherous fords of Tennessee and the cypress swamps of Mississippi, and battling with the slimy ooze of Arkansas and the sands of Texas.




RAY F. McNAMARA (PREMIER), WINNER OF GLIDDEN TROPHY

Laughter found its justification in the grotesque appearance of the Gliddenites. The last day's run from Davenport, Iowa, to this place was the dustiest of the entire four weeks. Constant traffic has reduced the roads to dust heaps. Horses kick up clouds that swirl up and obscure the vision, while every automobile whirls along with a trail like a yellow tornado. Vegetation on either hand is sickly from the drought and almost buried in the constantly-accumulating dust-storms. Through this land the Gliddenites "beat it" today, hot upon each other's trail. "They stayed not for brake and they stopped not for stone." Each car whirled along in a nimbus created by the car just ahead. Nine hours of this touring did wonders in the way of "make up" for the Gliddenites. When Chicago beheld them, many had removed their goggles and showed pallid patches around their eyes, which amid the surrounding encrusted dirt resembled the make-up affected by some burlesque slap-stick comedians. Others showed a blazing red nose gleaming from amid their other dust-encrusted features. Some were bareheaded, their locks loaded with dust like the weeds of the wayside. Some wore hats, some caps, some turbans made of bandanas, and some had towels borrowed from the last hotel twisted around their heads. Everyone was thoroughly plastered with dust and made a picturesque-looking array. It was hardly to be wondered at, therefore, that uncontrollable shrieks of laughter were heard on all sides as the procession meandered toward the New Southern Hotel. True comedy always finds a place beside real tragedy, and if those cars didn't suggest a tragedy, Chicago would like to know what tragedy is.

Immediately upon the arrival of the cars at the Royal Tourist garage, the technical committee began its part of the work by trying the clutches and brakes.

The cars that finished and their total road penalizations to date were as follows:

Glidden Contestants.

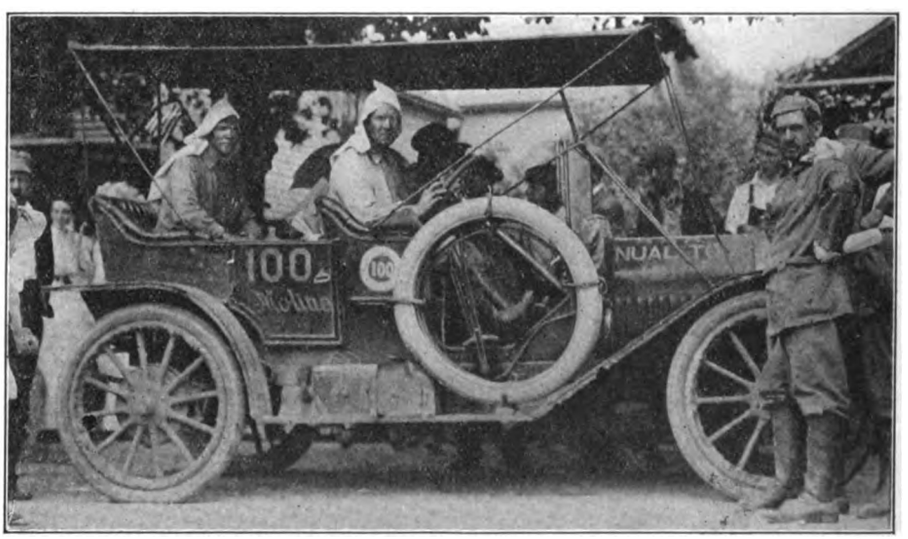
| | | |
|---|---|---|
| 1 | Premier, Ray McNamara | 9 |
| 2 | Premier, Charles Ballinger | 790 |
| 5 | Chalmers, William Bolger | 39 |
| 7 | Maxwell, H. E. Wells | 59 |
| 10 | Glide, Fred Castle | 1,755 |
| 15 | Cino, Walter Donnelly | 2,143 |

Chicago Trophy Contestants.

| | | |
|---|---|---|
| 100 | Moline, C. H. VanDervoort | 12 |
| 101 | Moline, J. A. Wicke | 478 |
| 102 | Moline, F. G. Salisbury | 62 |
| 103 | Lexington, J. C. Moore | 1,382 |
| 107 | Maxwell, J. Illingsworth | 43 |

There were no penalizations in today's run. The roads were generally poor. The deep dust hid holes that menaced axles and springs, so that it was necessary to drive cautiously. The schedule of 20 and 18 miles an hour was ample for the conditions, and many of the contestants arrived here an hour ahead of the schedule.

The Moline cars had the head of the line on checking out this morning at 6 o'clock. This was because the route led through Moline. That city gave the Moline cars an ovation, which had extra enthusiasm from the fact that Moline No. 100 was regarded as the sure winner of the Chicago trophy.




C. H. VANDERVOORT (MOLINE), WINNER OF CHICAGO TROPHY

At Rochelle, where the noon stop was made, two local sharks cleaned up the Gliddenites by charging them 50 cents for a bowl of bread and milk. The price was not fixed until after the food was eaten. The Gliddenites supposed it was another Ladies' Aid Society enterprise.

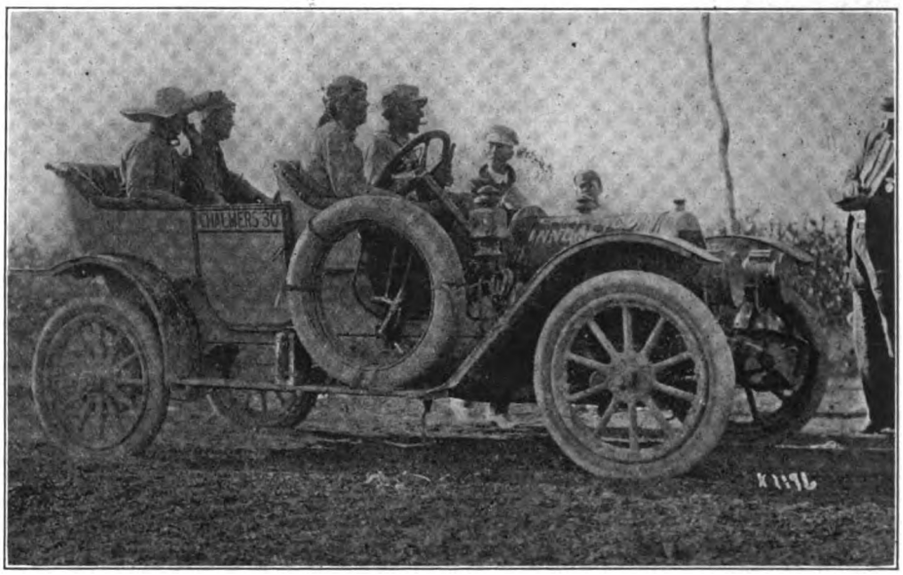
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Among the non-contesting cars which arrived here were the two Cadillac "gunboats." The cadets who manned them had a practical education in mechanics in fixing up the cars after their various experiences. The one great event in the tour for them was the breaking of an axle on one "gunboat" and the sinking of the other in the mud, both on the old battlefield of Iuka, Miss., where 1,000 Confederates under Van Dorn surrendered in June, 1862, to Gen. Price. The cadets consider it a remarkable coincidence.

The two Cartercars arrived, too, with the triumphal procession, but were not allowed to take part in the parade, as they were shipped part way by train. The massacre of press cars was well nigh an extermination; at one time not a single press car was in commission, but the Westcott was finally resuscitated and came on. So did the Halladay, the Great Western, the Columbia, pacemaker; the Reo official car, the Chalmers confetti cars, the Falcar, and Ohio No. 12. There were 19 cars in the parade, and the Molines brought up the rear with a parade of their own.

## Some Reflections Born of Experience on the Glidden Tour

Chicago, July 1.—While the members of the technical committee are investigating the cars to determine just what actual injury it did them to go 2,853 miles over as rough and impassable a route as could be laid out in America, the survivors are thinking. It is a mournful source of pleasure to reflect that they have done all that was asked of them, but they see clearly that they should never have been asked to go such a route at all. Cars can go at 20 miles an hour over the Louisville-Nashville pike where the pavement is of stones pointing up like axe blades, but of what use is it to have done so when no private owner would ever think of going more than 20 miles a day over such a road? They have shown that the pine barrens of Alabama and Mississippi, whose ox-cart trails have been washed and gashed by the rains and never repaired since the Civil War, but of what avails the demonstration, is the prevailing question, inasmuch as no private owner would ever think of going over such roads under any circumstances. It is the utter futility of the demonstration just ended at such a fearful cost in cars that makes the survivors feel as if they had been buncoed by the contest committee into paying $300 entrance money for making the tour.




WM. BOLGER (CHALMERS) NEAR-WINNER OF GLIDDEN TROPHY




JESSE ILLINGSWORTH (MAXWELL) RUNNER-UP FOR CHICAGO TROPHY

Another reflection is that as a publicity stunt the tour was a failure. The havoc among the press cars and even among competing cars rendered it necessary for the press representatives to go from control to control by train. By so doing they could not do full justice to the day's run. And when they did ride in the cars, they generally arrived so late and in so exhausted a condition from the effects of the sun and the long mileage that they did not have strength enough left to write the day's story. Even the officials in charge of the tour now admit that they overdid the matter of the length of the days' runs and defeated the publicity part of the tour.

It is generally conceded that the slaughter of cars would not have been so heavy had there been more good drivers. A large number of those on the tour might be qualified to drive a taxicab in New York or Chicago, but as drivers in this tour they were car-wreckers. Older and more experienced drivers like Bill Bolger, Ray McNamara, C. H. VanDervoort, J. A. Wicke, J. Illingsworth and F. G. Salisbury brought their cars through the worst of road conditions with little damage to their frames or running gear. Some of them preferred to take penalizations of time in arriving late at control to wrecking their cars in trying to keep up with the 20-hour schedule required by the committee over the worst roads. They chose to drive rationally, irrespective of the rumors of the officials. And it is the big joke of the tour that C. H. VanDervoort should be the winner of the Chicago trophy. For he was generally the last to start in the morning and the last to get in at night. And he was the one to whom the well-meaning but misguided public who believed that the whole thing was a race would shout hun-

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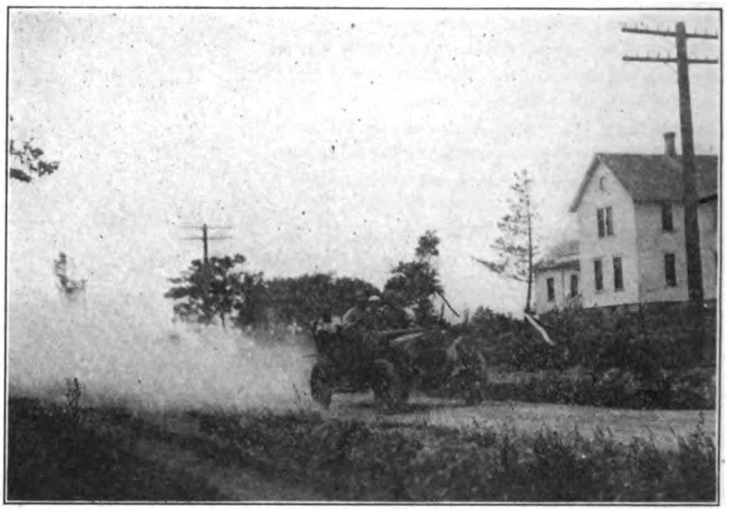

ONE OF THE SIGNS IN WHICH THE GLIDDENITES BELIEVED

dreds of times daily, "You're late. The rest went by an hour ago!" He was merely driving at the maximum schedule of 16 miles an hour, as a private owner would do under the same conditions, and his policy won.

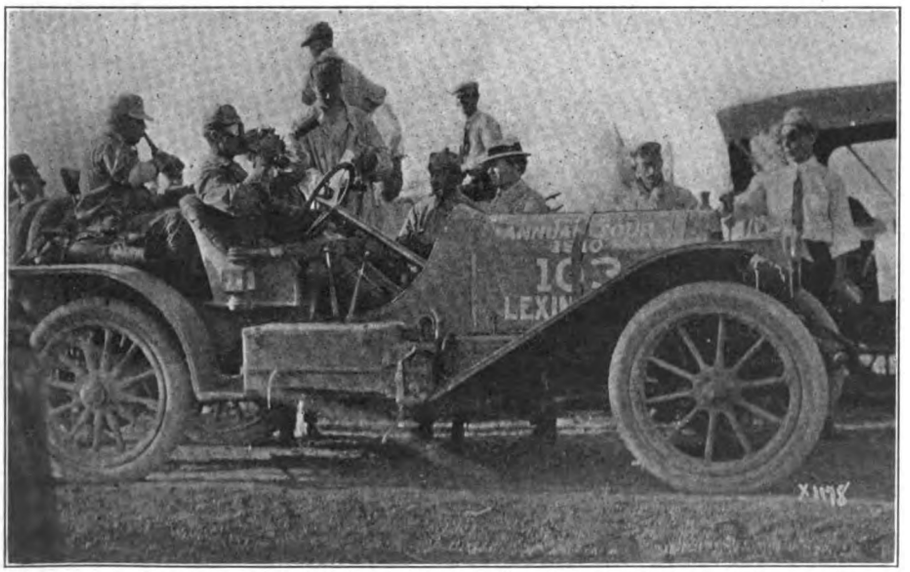
On the other hand, the ambition of young amateurs to pose as Vanderbilt cup race drivers was responsible for the early downfall of many cars. The Cole car, it will be recalled, was smashed on the first day's run because its driver wanted to go fast, and essayed to pass another car and a vehicle from the other direction. The driver of the Falcar had a great time passing everybody for the first few days. He was young and irrepressible. Eventually he spent about as much time under the car as he did in it. The driver of the Cino had everybody terrorized by his sensational driving, but put it out of any chance for a trophy by slamming it into ditches and against stumps. It is regarded as a remarkably good car to have come through at all under such punishing driving. The drivers of the Cartercars and the press cars gave their machines little chance for honors in such a tour. They were always for the head of the line. "Beat it" was their motto. Experienced Gliddenites were able to pick out the cars that would fall down by watching the methods of the drivers on the first two days' run.



THE PUNCTURE VILLIAN PRESENT TO THE VERY END



ON A GOOD ROAD AND WITH CHICAGO ALMOST IN SIGHT



THE EFFECT OF THE SIGN AND SOME OF THOSE WHO BELIEVED IN IT

This tour was characterized by some noticeable departures from the tours of former years. For one thing, there was missing the wild orgy of spending money on arriving in control, like sailors blowing in after a cruise. No more bridal chambers for drivers and mechanics at the best hotels. This year the drivers and mechanics were under restraint. Each manufacturer represented by two or more cars and crews put his squad in charge of one man. This man would arrange for the accommodations of his crews. There was no separate room

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for each man. Instead, there were from two to six or even 12 beds in a room, and the crews occupied them. The representatives of the firm settled the bill. Any day one could see the Chalmers representative dealing out a bottle of milk and several sandwiches to each of his crew. This was their rations for the noon control. Of course, if there was a "hand-out" at any place, the crew got the benefit of it. If they bought a drink at the end of the day's run, they did not put that in the expense account, as formerly. So, too, the Premier representative ruled his crews with economy, and the Moline crews looked to W. H. VanDervoort for their daily needs. As to the nightly entertainments provided by clubs in the various night controls, they were generally patronized poorly by the Gliddenites. The latter generally got in so late and were so worn out with the heat and long riding that what they wanted most was sleep. Besides, Dutch lunches have come to be regarded as a poor preparation for a day's run of 200 miles over hard roads, and it was felt that there was too much at stake to have the chances of winning dissipated by late wassails. Each crew was kept under rigid restraint by the representative of the different manufacturers. It is generally conceded that the day for high jinks in connection with the Glidden tour is over. As to the prospects for another Glidden tour another year, the general opinion is, "Oh, I suppose they will catch another bunch of suckers another year."

**New Law Discriminates Against Motorists.**

Gradually it is being made more unpleasant for such motorists as have small regard for the speed limit. An unexpected instance of this is found in the interpretation of a new law, which is intended to spare ordinarily peaceable citizens of New York City the indignity of summary arrest for minor infractions of the law. By the terms of the inferior courts law, as it is known, which goes into effect on the first of September next, the police commissioner may issue to well-disposed people cards of identification. In the event of any violation of the ordinances, a citizen equipped with such a card merely will display it to the police and receive a summons to appear in court for trial, instead of being rushed off to the station house. The only exceptions to the summons rule will be violations of the motor vehicle law and breaches of the peace.

**Oklahomans Organize Another Club.**

Hobart (Okla.) motorists have organized the Kiowa County Automobile Association, with fifty charter members and the following officers: President, D. A. Scott; vice-president, R. R. Ash; secretary, R. M. Simmons; directors, A. R. Stinson, R. A. Hording, Dr. E. F. Dunlap, C. H. Griffith, Charles Poston, Dr. Brice and James Portwood.

## WHIZZING THE MILE AT WILDWOOD

**Despite Many Trials on Seaside Straightaway, the Record Still Stands—Woman Wins a Consistency Contest.**

But for the celerity of the officials in running the events, the program of races and time trials at Wildwood, N. J., on July 4th would have been very tiresome, because of the length of the program. There were no less than 19 events carded, but the officials knew their book and the crowd did not have long to wait between events—a condition that has marred previous gatherings at that seaside resort.

The events were held under the auspices of the North Wildwood Automobile Club and on the mile straightaway. Because of the holiday, the crowd was unusually large, but the policing was excellent and not a mishap occurred during the entire program.

A stiff wind blew across the course, and but for that the record of 41 seconds for the course might have been lowered. As it was, the best time was made by J. Fred Betz, 3d, of Philadelphia, who drove his Simplex car over the 5,280 feet of gravel road in 45 seconds in the time trials. The next fastest time was scored in the motorcycle events, W. J. Teubner covering the distance in 45⅘ seconds.

A consistency run between Philadelphia and Wildwood, in which 56 cars started and finished, was the curtain-raiser for the carnival, that event being held on Saturday, 2nd inst. The cars started at intervals of one minute and were allowed 6 hours 8 minutes to reach Wildwood. Secret observers were stationed at various points along the route, their observations being made the criterion for the awards. A Miss Gallagher, driving a Franklin car, made the most consistent performance, and therefore was awarded the first prize, she being assessed only 5¾ points. F. B. Wildman, Chadwick, was a close second, with a penalization of 6 points. Mrs. D. Walter Harper, Stanley, was third, 8½ points out of the way. It was a great surprise to the men to discover that the women were the most consistent drivers. The summaries of the Fourth of July events follow:

Special event—Won by J. Fred Betz, 3d, Simplex; second, Stanley Martin, Houpt-Rockwell. Times, 0:52½ and 0:54¾.

Runabouts, $1,200 and under—Won by G. G. Stranahan, Warren-Detroit; second, Tom Wilkie, Buick. Times, 1:06 and 1:14⅕.

Touring cars, $1,201 to $2,000—Won by Phillip Hines, Buick; second, Tom Wilkie, Buick; third, Frank Yerger, E-M-F. Times, 0:59⅗, 1:09⅗ and 1:10.

Touring cars, $2,001 to $3,000—Won by C. A. Warren, Stoddard-Dayton; second, Ernest Stein, Speedwell; third, Ira L. Brown, Jackson. Times, 1:05⅕, 1:06⅕.

Touring cars, $3,001 to $4,000—Won by R. Fertig, American; second, George Parker, Palmer-Singer; third, Norman St. Adiger, American. Times, 0:58⅗ and 0:59.

Touring cars, $4,000 and over—Won by Harry Hartman, Houpt-Rockwell; second, Stanley Martin, Houpt-Rockwell. Times, 0:59⅘ and 1:10.

Stripped chassis, $1,200 and under—Won by G. G. Stranahan, Warren-Detroit; second, J. L. Fritz, Warren-Detroit; third, Tom Berger, Warren-Detroit. Times, 1:01⅕, 1:01⅗ and 1:06⅕.

Stripped chassis, $1,001 to $2,000—Won by H. P. Hardesty, Pullman; second, Ernest Sein, Speedwell; third, Mercer. Times, 1:01⅘ and 1:04.

Stripped chassis, $2,001 to $3,000—Won by C. A. Warren, Stoddard-Dayton; second, Ira L. Brown, Jackson; third, C. J. Rogers, Chalmers-Detroit. Times, 1:03⅗ and $1:08⅘.

Stripped chassis, $4,000 and over—Won by J. Fred Betz, 3d, Simplex; second, Stanley Martin, Houpt-Rockwell; third, Louis Disbrow, Knox. Times, 0:48⅗, 0:53.

Free-for-all—Won by J. Fred Betz, 3d, Simplex; second, Ernest Stein, Speedwell; third, Louis Disbrow, Knox; fourth, C. J. Rogers, Chalmers-Detroit; fifth, Stanley-Martin, Houpt-Rockwell. Times, 0:51⅕, 0:53⅕, 0:54⅘.

Special event—Won by R. Fertig, American; second, George Parker, Simplex; third, C. A. Warren, Stoddard-Dayton; fourth, Ernest Stein, Speedwell. Times, 0:57⅕, 0:58.

Winners' handicap—Won by G. G. Stranahan, Warren-Detroit; second, Tom Berger, Warren-Detroit; third, Harry Hartman, Houpt-Rockwell; fourth, F. Fred Betz, 3d, Simplex. Time, 1:10⅕.

Time trials—J. Fred Betz, 3d, Simplex, 0:45 and 0:47; Stanley Martin, Houpt-Rockwell, 0:48⅗ and 0:51; Louis Disbrow, Knox, 0:52 and 0:51⅕; Harry Hartman, Houpt-Rockwell, 0:52⅗ and 0:54⅗; W. H. Sharp, Sharp-Arrow, 0:53⅘ and 0:55⅘; C. J. Rogers, Chalmers-Detroit, 0:55⅗ and 0:56⅗; George Palmer, Palmer-Singer, 0:57 and 0:54⅘; Tom Berger, Warren-Detroit, 0:58⅘ and 1:01⅕; J. T. Sherman, Packard, 1:02⅘; Mrs. Joan Cuneo, Knox, 0:54⅕.

Fastest time made by motorcycle—W. J. Teubner, Merkel, 0:45⅘.

**Connecticut Halts a No-Muffler Chap.**

Herman Steinberger, a young New Yorker, driving a foreign car, this week discovered that however much he personally may "like the noise" that comes from an open muffler, the Connecticut law forbids it and means what it says. The young man with the big noise was arrested in Hartford and haled to court, although he was in a hurry to reach New York. The arresting policeman first ordered him to close his cut-out, but later it developed that the car had no muffler at all. Steinberger had one applied before he left town.

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## HONORS CLOSE IN ST. LOUIS RUN

**Technical Committee Wipes Out All Clean Scores—Merz, in a National, Gets the First Award.**

Although six of the 28 contestants in the three days' endurance contest held by the St. Louis Automobile Manufacturers and Dealers' Association on June 28, 29 and 30 finished the 418 miles of give-and-take roads with perfect road scores, the subsequent findings of the technical committee soiled all the clean sheets and developed a winner in the person and car of Carl Merz, and his National. Merz was one of those who finished with a perfect road score, but the technical committee assessed the car 8 points. Honors were very close, for B. W. Olin, Oldsmobile, and E. E. Ernest, Columbia, finished only 1 point behind Merz, and Frank DeLaney's Buick was only two points behind the winner.

The contest started from St. Louis, Mo., on June 28th, the first day's journey taking the contestants to Hannibal, a distance of 148.1 miles. One mishap was sufficient to put the Rambler, driven by Will Smythe, out of the running. The car skidded on a double curve three miles south of Clarkesville on the Pike County road, and collided with a telegraph pole, bending the front axle and putting the radiator out of commission. Between Wentzville and Moscow the worst mud was encountered, and several cars lost points in this stretch.

Sixteen scores remained perfect at the ending of the first day, the penalized drivers, their cars and scores being: Eli Coillutte, Moon, 971; Val Heinrich, Maxwell, 998; B. W. Olin, Oldsmobile, disqualified; C. M. Barnard, Mitchell, 990; E. J. Moon, Moon, 975; Will Smythe, Rambler, disqualified; Matthew Vlavalt, Moon, 998; Arthur J. Whittaker, Everitt, 994; J. H. Little, Mitchell, 993; Walter Saigeon, Pope-Hartford, 999; Roy Anselm, Hupmobile, 975; Ed. Holthaus, Marmon, 977; R. B. Koken, Stearns, 994; A. A. Franklin, Haynes, 886.

The disqualification against Olin's Oldsmobile was removed after the second day, when it was discovered that the observer had mistaken the removing of a tire chain that had been placed upon the running board as being a repair. Many other drivers lost points between Hannibal and Mexico, however, reducing the number of perfect scorers to nine. The Haynes car was delayed 2½ hours on account of the driver, A. A. Franklin, being arrested upon arriving at Hannibal upon the complaint of a farmer who refused to give any road directions and caused an altercation in which several blows were struck The argument took place just out of New London. Franklin was released without being compelled to pay a fine, but the delay caused him to be a half hour late at the night control. The distance of the day's run was 143.3 miles.

The return leg from Mexico to St. Louis was the shortest day's travel, the distance being only 127 miles. The entire 30 cars pulled into St. Louis in the afternoon of June 30, with remarkably light road penalizations against many of them, seven finishing with clean scores, which later were riddled, however, by the technical committee.

There was one incident to create some excitement before the contestants left Mexico in the morning. The observer on the Moline car was detected drinking a bottle of beer by an over-zealous constable. It is a horrible crime to drink any spiritous liquors in dry Mexico, and the constable promptly seized the contraband wet goods and haled the observer and his other occupants of the car to the police station. Despite the assertions of the party that the beer had been purchased in Hannibal and not in Mexico, the judge only allowed the party to proceed after $8.50 had been collected. That almost is a record high price for bottled beer.

The cars began arriving in St. Louis soon after 2 p. m., and as soon as they were checked in were looked up and thoroughly examined by the technical committee, consisting of Stewart McDonald, Moon Motor Car Co.; G. P. Dorris, Dorris Motor Car Co.; A. R. Walton, St. Louis Car Co., and W. P. M. Stevens, representative for the American Automobile Association, under whose rules the contest was held. The machines first were subjected to a brake test and then clutch test, after which they were examined in the official garage, the committee going over every nut and bolt and each mechanical detail. Before the technical committee began its work the perfect scores were Charles E. Goldthwaite, Overland; Frank DeLaney, Buick; E. E. Ernest, Columbia; Carl Williams, Haynes; C. Merz, National; H. M. Paine, Interstate, and W. von Steiger, Moline.

These perfect scores were removed from their position, however, when the technical committee put on its magnifying glasses. Merz lost 8 points, and Ernest lost 9 points for loose nuts and screws. The medal for hard luck will be given A. A. Franklin, who drove a Haynes. Crossed ignition wires caused a penalty the first day, and when he was arrested the second day the motor was stopped 125 minutes while waiting for the wheels of justice to turn, and that caused a penalization of 125 points. The balance of debit was caused through lateness at controls. R. B. Koken's Stearns was disqualified because it was found the brake had been wired to keep it in place, and the Marmon, which was withdrawn, continued as a non-contestant and finished. The Star trophy, a magnificent silver cup, will go to Merz, and the winners in the various classes will receive certificates. Following is the official summary:

| Driver and Car. | Points. |
|---|---|
| C. Merz, National | 992 |
| B. W. Olin, Oldsmobile | 991 |
| E. E. Ernest, Columbia | 991 |
| Frank DeLaney, Buick | 990 |
| W. B. Fewell, Oldsmobile | 983 |
| W. con Steiger, Moline | 979 |
| H. L. Bagley, Ford | 979 |
| Val Heinrich, Maxwell | 978 |
| H. L. Chure, Amplex | 977 |
| C. E. Goldthwaite, Overland | 975 |
| C. M. Barnard, Mitchell | 972 |
| Carl Williams, Haynes | 958 |
| Walter Saiegon, Pope-Hartford | 957 |
| E. J. Moon, Moon | 956 |
| W. F. Bagnell, Cadillac | 940 |
| J. H. Little, Mitchell | 939 |
| J. M. Dunwoodie, Stearns | 934 |
| A. J. Whittaker, Everitt | 932 |
| Matthey Blavalt, Moon | 893 |
| H. M. Paine, Interstate | 880 |
| Roy Anselm, Hupmobile | 874 |
| Eli Coillutte, Moon | 873 |
| J. T. Rumble, Dorris | 843 |
| James Ladd, Buick | 770 |
| J. E. Baker, Dorris | 713 |
| A. A. Franklin, Haynes | 695 |
| N. C. Tuxbury, Buick | 691 |
| Ed. Holthaus, Marmon | Withdrawn |
| Will Smythe, Rambler | Disqualified |
| R. B. Koken, Stearns | Disqualified |

**Ocean City Motorists Prove Good Guessers.**

Fifteen members of the recently organized Ocean City (N. J.) Automobile Club participated in a guessability or sealed time run from that resort to Cape May, N. J., on Manday last, 4th inst. The sealed time for the round trip for the Ocean City prize was 3 hours 33 minutes 30 seconds, and P. F. Stanton, driving a Cadillac, came within 15 seconds of the required time. Allen Scull, E-M-F, finished second and also received a cup, and E. M. Sutton, Mitchell, and Dr. H. F. Loesch, E-M-F, will draw lots to determine the recipient of the third prize, these two having tied. The sealed time for the single trip from Ocean City to Cape May was 1 hour 46 minutes 45 seconds, and the surprise was that three competitors tied for highest honors, finishing together within 1 minute 15 seconds of the required time. The disposition of the cups will be decided by William F. Smith, Maxwell; Albert Fogg, Knox, and W. G. MacFarlane, Warren-Detroit, the trio of winners. The route was from Ocean City to Cape May via Goshen and South Dennisville, and all the cars except one made the trip without any difficulty.

**Two Automobile Clubs Elect Officers.**

The Grand Island (Neb.) Automobile Club has elected the following officers for the ensuing year: President, L. M. Talmadge; vice-president, Jack Donald; secretary and treasurer, Roy Brininger.

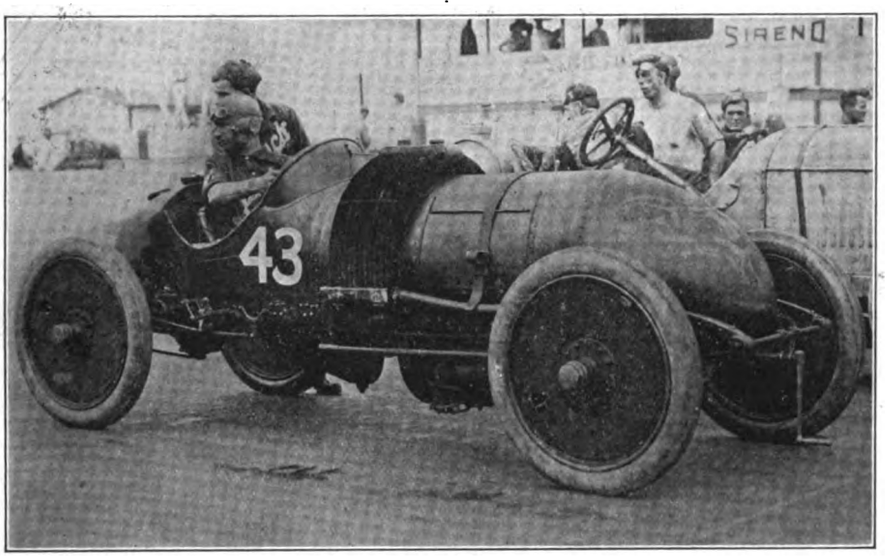
The Omaha (Neb.) Automobile Club has elected officers for the ensuing year, as follows: President, E. H. Sprague; first vice-president, Frank Parmalee; second vice-president, W. R. McKeen, jr.; secretary, A. H. Fetters; treasurer, L. C. Nash. Directors—A. P. Guion, J. W. Parish, Dr. J. P. Ford, Gould Dietz.

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# RECORD-WRECKING ON INDIANAPOLIS TRACK

## Another Memorable Three-days' Meeting on the Speedway Results in Many New Figures—Feature Events Overshadow Many Minor Races—Burman Loses the Helmet but Wins the Brassard and Dawson Captures the "Big" Race and the Cobe Trophy.

When the Indianapolis (Ind.) Motor Speedway was constructed a little less than a year ago there were many who gazed upon its huge 2½ miles ellipse and predicted failure for the magnificent course that had cost several hundred thousand dollars to build. If there were any of those same persons present at the Speedway on Friday, Saturday and Monday last, July 1, 2 and 4, doubtless they held a different opinion. There was fine racing and good crowds, and in every other way was it a memorable meeting.




BURMAN IN THE BUICK THAT BEARS NO FAMILY RESEMBLANCE

There were sufficient exciting incidents to thrill even lethargic persons, and happily for all concerned there was not a single accident to mar the occasion. It largely was a Buick meeting insofar as cars were concerned, as well as a Michelin tire sweep, the latter make winning 22 of the 26 races; but there were sufficient close races to give the Buick pilots a run for their money and also one sturdy car and driver who "tied the can" on the Buick crew in the feature race of the meet, viz., the Cobe Trophy race on Monday. The man was Dawson and the car a Marmon.

Last year the Cobe Trophy race was held on the roads in Indiana, over a ourse known as the Crown Point circuit, and upon that occasion Louis Chevrolet snatched the victory with his Buick car. The Buick stable particularly was anxious to duplicate their performance and with that object had entered Burman, Louis and Arthur Chevrolet. Louis soon was out of the running, but Arthur Chevrolet and Burman both did well until they had trouble with their cars and were unable to stop the fierce onslaught made by Dawson.

Until Burman's appearance at the Indianapolis meet references to a "bullet-like flight" had been more or less imaginative. Burman, however, appeared with a specially designed car that had every appearance of a huge projectile and the odd-shaped car caused much comment. It as closely resembles the catalogued Buick as a battleship resembles a rowboat. Burman is an intrepid driver and he made good by winning, besides several minor races, the G & J trophy and Remy Grand Brassard events on Friday and Saturday, although he was forced to relinquish the Speedway helmet to Hearne on the former day. Burman also figured largely in the record-smashing, as did the Chevrolet brothers.

### Herne Takes the Helmet from Burman.

With a large crowd in attendance, the opening day's racing was the most successfully carried out of any that have predominated at the Indianapolis Motor Speedway. The entire program of events was replete with exciting incidents and free of accidents. As usually is the cast, the best event was saved until the last, this coming with the running of the 50 miles race for cars in the 231-300 cubic inches category for the G. & J. Trophy, valued at $1,000. In addition to the trophy there were cash prizes of $150, $100 and $50. Eleven cars started but early in the race it was seen that, barring accidents, the outcome would be between Burman and Arthur Chevrolet, both driving Buicks. This especially was true when Harroun's Marmon drew up to the repair pits after 10 miles of sizzling going and when Dawson, also on a Marmon, hung on for more than half the distance and then was obliged to follow Harroun's example. Burman and Chevrolet alternated in the lead, and this kept the interest of the spectators above par until Burman scooted over the tape at the end of 50 miles in 40:03.07, breaking the previous record of 42:41.83, made by Harroun at the Indianapolis course last May.

Another interesting event was the 10 miles free-for-all for the Indianapolis Motor Speedway helmet. After one attempt to get the cars away from a flying start the starter gave up the job and sent them away from a standstill. The eight entries were classy and Aitken's National burned the bricks, but was overhauled and passed by Hearns, in the Benz, who finished in front in 7:13. Burman won the helmet at the May meeting, and under the deed of gift has been drawing cigarette money to the tune of $50 a week ever since. Burman wore the helmet in Friday's race and seemed greatly disappointed when he had to pass it over to Hearne.

Speedway records were lowered in the 5 miles event for 161-230 cubic inch cars and the 10 miles race for cars in the 231-300 class. Louis Chevrolet won the former in 4:40.08, breaking his own record of 4:41. In the 10 miles race Burman scurried away at the start like a scared rabbit and was never headed, finishing in 8:14.46. Harry Grant, the Vanderbilt cup winner, scored in a 10 miles race with his Alco car and Greiner, on a National, brought home the bacon in the amateur race. The summaries:

Record trials—Best time made by Louis Chevrolet, Buick. Times, one mile, 0:37.95; one kilometre, 0:22.43; one-half mile, 0:17.54; one-quarter mile, Robert Burman, Buick, 0:08.51.

Five miles, 160 cubic inches—Won by Roberts, Herreshoff; second, Meddock; Empire; third, McCormick, Herreshoff. Time, 5:30.61.

Five miles, 161-230 cubic inches—Won by L. Chevrolet, Buick; second, Burman, Buick; third, Miller, Warren-Detroit. Time, 4:40.80.

Ten miles, 231-300 cubic inches—Won by Burman, Marquette-Buick; second, Dawson, Marmon; third, Harroun, Marmon. Time, 8:14.46.

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Fifteen miles, 301-450 cubic inches—Won by Burman, Buick; second, Aitken, National; third, A. Chevrolet, Buick. Time, 11:46.42.

Ten miles, 451-600 cubic inches—Won by Grant, Alco; second, Wilcox, National; third, Greiner, National. Time, 8:03.09.

Ten miles handicap, free-for-all—Won by Sutcliffe, Maytag (3:50); second, Davis, Great Western (3:00); third, Miller, Warren-Detroit (2:51). Time, 10:01.78.

Five miles amateur—Won by Greiner, National; second, Tousey, National. Time, 4:14.95.

Ten miles free-for-all, for Speedway Helmet—Won by Hearne, Benz; second, Harroun, Marmon; third, Zengle, Chadwick. Time, 7:13.

Fifty miles, 231-300 cubic inches, for G & J Trophy—Won by Burman, Buick; second, A. Chevrolet, Buick; third, Pearce, Fal Car. Time, 40:03.7.

**How Burman Won the Remy Brassard.**

As dust before a hurricane, so were records blown from the books on Saturday, the second day of the meet. The wholesale slaughter began when Roberts created a record for 10 miles in the 160 cubic inches class, and finished after sunset when Burman whirled to the finish in the 100 miles race of the 301-450 cubic inches class for the Remy Grand Brassard.

The Remy Brassard grind was the feature race of the day, and it came after several sharp skirmishes had been fought in the short distance events. The great field of starters began to knock the records galley west at the 20th mile, when Kincaid delivered a Reno knockout to Harroun's Marmon-Atlanta mark by reeling 20 miles in 15:48.83. At 30 miles Kincaid was still hammering Father Time to a pulp, covering the distance in 31:47.8, but tire trouble a few minutes later allowed Burman to sweep past with a triumphant roar. Burman remained in front from then until the finish and set up new records for 40, 50, 60, 70, 80, 90 and 100 miles, respectively, in 31:47.86, 39:47.86, 48:15.2, 56:05.65, 1:04, 1:12:27.8 and 1:20:35.6. Earlier in the afternoon Chevrolet broke the 10 miles mark in the same class by covering the distance in 7:54.8, which broke Burman's record made the day before. In a 10 miles race for 161-230 cars Chevrolet slashed another record by finishing in 8:55.4.

Curly-haired, smiling George Robertson had reason to smile even more broadly in the 10 miles free-for-all when he drove his fast Simplex four times around the 2½ miles course in the phenomenal time of 6:53.38—an average of 87.08 miles per hour. The former record was made by Bragg at the Indianapolis May meeting. With this introduction the crowd looked for Robertson to repeat in the five miles free-for-all, but a surprise and thrill was in store for them. Robertson went out in front and for a lap—2½ miles—his Simplex responded masterly. Then Aitken swooped down upon him like a hungry hawk, and after a neck and neck battle that brought forth mighty huzzas the National cannonaded over the line a close winner. This really was the prettiest race of the meeting and Aitken was the hero of the minute. The summaries:

One mile record trials—Won by Burman, Buick. Time, 0:38.36.

Ten miles, 160 cubic inches—Won by Roberts, Herreshoff; second, Merz, Empire; third, Herreshoff, Herreshoff. Time, 10:36.30.

Ten miles, 161-230 cubic inches—Won by L. Chevrolet, Buick; second, Burman, Buick; third, H. Endicott, E-M-F. Time, 8:55.40.

Five miles, 231-300 cubic inches—Won by L. Chevrolet, Buick; second, Burman, Buick; third, Dawson, Marmon. Time, 4:08.03.

Ten miles, 301-450 cubic inches—Won by L. Chevrolet, Buick; second, Aitken, National; third, Dawson, Marmon. Time, 7:54.86.

Twenty miles, 451-600 cubic inches—Won by Grant, Alco; second, Greiner, National; third, Wilcox, National. Time, 16:27.13.

Ten miles handicap, free-for-all—Won by Robertson, Simplex; second, Smith, National; third, Ireland, Midland. Time, 6:53.48.

Ten miles amateur, free-for-all—Won by Greiner, National; second, Tousey, National; third, Wishart, Mercedes. Time, 8:16.56.

Five miles free-for-all—Won by Aitken, National; second, Robertson, Simplex; third, Hearne, Benz. Time, 3:39.7.

One hundred miles, 301-450 cubic inches, for Remy Grand Brassard—Won by Burman, Buick; second, Dawson, Marmon; third, Harroun, Marmon; fourth, A. Chevrolet, Buick. Time, 1:20:35:6.

**Dawson's Triumph in the Cobe Cup Race.**

Although there were other events on Monday's card, the transplanted 200-miles Cobe Trophy event easily held the attention of the holiday crowd to the exclusion of the other races. Not only was it one of the most exciting long-distance grinds ever held in this country, but it placed a new star in the automobile racing firmament, Joe Dawson by name. Dawson is a beardless Indianapolis youth, but his nerve and the speed of his Marmon car were sufficient to wrest victory from Burman and his Buick car in a spectacular battle that caused 20,000 persons to shout for joy when the home product emerged from the battle victorious.



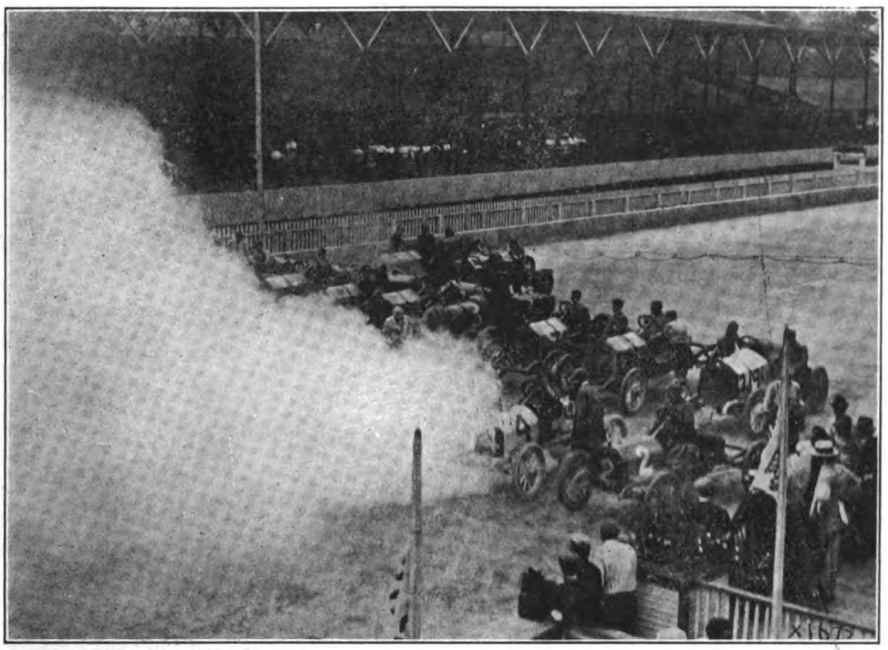
"ACTION" IN THE MICHELIN TIRE CAMP AT INDIANAPOLIS

Glory always means a deal of personal satisfaction, but Dawson derived more than that. Not only did he receive the backclaps and handshakes of his employers and Indianapolis friends, but his pocket was filled with the always useful coin of the realm. Besides winning the $3,000 silver trophy, Dawson personally received $500 from the Speedway management, $300 because his car was fitted with a Bosch magneto and an additional $400 for using Michelin tires, altogether a tidy sum for less than three hours' work.

The Cobe Trophy race, which was for cars between 451 and 600 cubic inches, attracted a field of 14 speed eaters. Burman rolled to the front at the 14th lap, and after 32½ miles he relinquished the lead to Arthur Chevrolet, but regained it later. Burman and Chevrolet then alternated in the lead for a long time. Grant, in the Alco car, was a prominent contender at the beginning of the race, but tire trouble destroyed his chance. After 115 miles had

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been covered Dawson was bothered by tire trouble for the first and only time during the struggle. When he resumed the flight he was still third, in the rear of Burman and Chevrolet. Then Grant threw another tire directly in front of the grandstand and A. Chevrolet was compelled to stop with engine trouble and a leaky radiator, and Burman also lost a few minutes. Not until the 175th mile, however, did Burman lose his lead to Dawson, who thereafter was never headed. When the grimy-faced boy hurled his car across the tape in what was perhaps the most spectacular automobile race ever seen in the West he was almost mobbed. As he was borne aloft on the shoulders of his friends and hero-worshippers the stands rang with applause.



THE START OF A BIG FIELD—21 CARS

The race produced a grist of new records. A. Chevrolet covered the first 20 miles in 14:10.07, more than a minute better than Robertson's previous best, and Burman established a new record for 60 miles, when he was clocked in 50:16.00. A. Chevrolet made new marks for 70, 80, 90, 100 and 110 miles, respectively in 58:13.21, 1:06:14.06, 1:14:14.4, 1:22:10.09 and 1:30:00. Burman got the record for 120 miles in 1:37:54.1, as well as the 130 miles, in 1:45:50.3; the 140 miles, in 1:53:53.3; the 150 miles, in 2:01:54.2; the 160 miles, in 2:09:53.5; the 170 miles, in 2:19:07.8, and the 180 miles, in 2:26:51.6. Dawson established a record for 190 miles, in 2:35:17.9, and the 200 miles mark was reached in 2:43:20.13, lowering the record of 2:53:48.51, made by Disbrow at Atlanta.

One other record was broken on Monday, when Hearne won the 20 miles free-for-all in 14:08.22; the former record of 15:31.80 was made by Robertson at Atlanta. Wishart won the amateur race, and L. Chevrolet, Roberts and Heineman also scored firsts in the events which were eclipsed by the Cobe Trophy race. The summaries:

Ten miles, 161-230 cubic inches—Won by L. Chevrolet, Buick; second, Burman, Buick; third, Endicott, E-M-F. Time, 8:12.2.

Five miles, 160 cubic inches—Won by Roberts, Herreshoff; second, Herreshoff, Herreshoff; third, McCormick, Herreshoff. Time, 5:22.8.

Five miles, 231-300 cubic inches—Won by Heineman, Falcar; second, Pearce, Falcar; third, Stinson, Black Crow. Time, 4:44.3.

Two hundred miles, 451-600 cubic inches, for Cobe Trophy—Won by Dawson, Marmon; second, Burman, Buick; third, Harroun, Marmon; fourth, A. Chevrolet, Buick. Time, 2:43:20.1.

Five miles free-for-all, amateur—Won by Wishart, Mercedes; second, Greiner, National; third, Tousey, National. Time, 4:21.34.

Twenty miles free-for-all — Won by Hearne, Benz; second, Aitken, National; third, Burman, Buick. Time, 14:08.72.

### Amateur Event for Long Island Parkway.

For the first time, the Long Island Motor Parkway Co. has taken cognizance of the existence of amateurism and decided to assist in encouraging it. The encouragement will take the form of a ten-mile sweepstakes race on the parkway on July 30th. On the same day there also will be run a Clas C open event for cars from 301 to 600 cubic inches piston displacement without regard to weight limitation and also a free-for-all race, the conditions for both of which will be identical with those applying to the Vanderbilt cup race which will occur on the parkway on October 1st next. Cups will constitute the awards in the amateur event and cash prizes of $100 and $50 in each of the other races. The entry fee will be $20 per car. A. R. Pardington, the vice-president and general manager of the Parkway, is in charge of the entry list. The admission fee on July 30th will be but 75 cents and there will be no charge for parking cars.

### Licensing New York's Chauffeurs.

With a vigorous movement, which may be described as grasping the bull by the horns, Secretary of State Koenig has announced that in licensing chauffeurs under the terms of the new motor vehicle law, drivers' past performances will be taken into account; chauffeurs who are known to the police as reckless drivers, men who have been in many accidents as a result of their own carelessness, will be refused the necessary certificates and badges. This precaution, Secretary Koenig thinks, will go a long way toward inspiring a wholesome regard for the majesty of the law in the breasts of those to whom licenses are given. The law goes into effect on August first, and prior to that date examinations will be held in various cities to be designated within a few days.

In connection with the administration of the new automobile bureau, it has been decided to open a branch office in New York City, which, it is announced, will be at the headquarters of the Touring Club of America and will be in charge of Secretary Frederick H. Ellliott, of that institution. Spencer G. Prime, 2d, of Lake Placid, has been appointed chief of the bureau, with William Perry cashier. A number of the examiners already have been appointed; about half of them are professional politicians who apparently will draw pap from the crib.

### "Guessability" Attracted Few New Yorkers.

New York did not take very kindly to the guessability game, the effort to introduce which was undertaken by the Touring Club of America, so-called. Despite enticing and conspicuous publicity which the event received in the daily press, only about 12 entries were received for the club's guessability-sociability run from New York to Waterbury, Conn., and return, which occurred July 2-4. The secret time schedule fixed was 785 minutes for the 200.8 miles, and those who guessed nearest to it and obtained the awards were, in order, J. H. Murphy, Premier; H. M. Moore, Brush, and E. C. Meurer, Premier. Murphy's guess was 40 minutes less than the schedule; the other two were more than an hour over the secret time.

### New Dates for Long Island Reliability.

The Brooklyn Motor Vehicle Dealers' Association has postponed its reliability run from Brooklyn to Montauk Point, L. I., and return, to August 9-10. Originally it was fixed to occur July 19-20.

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## BLANKET FINISHES AT CHICAGO

**Motor Cars "Make Good" in Three Days' Event, but Airships Refuse to Sail—Oldfield in Evidence.**

The attempt of the Colonial Aero Club to promote a combination aviation-automobile-motorcycle meet at the Hawthorne mile dirt track near Chicago, Ill., on Saturday, Sunday and Monday last, July 2, 3 and 4, did not produce the good sport looked for.

The meeting started auspiciously on Saturday with a number of races that were interesting, and it was fortunate for the promoters that the automobile and motorcycle part of the program went along smoothly, for it is more than the airships did. A crowd of 10,000 people were in attendance and they had a chance to enthuse in 10 and 25 miles races, when blanket finishes prevailed. Oldfield and his big Benz were much in evidence, but he contented himself with a mile exhibition in 54⅗ seconds. The 25 miles race—the feature—was won by Oldfield in his Knox.

The meet petered out on Sunday, and despite a large crowd no automobile races were held, although Oldfield and his stable mate, Kerscher, obliged with speed trials. Kerscher covered two miles in his Darracq in 1:56; Oldfield followed in 1:50⅗.

A record-breaking attendance of 25,000 persons were on hand Monday afternoon to see the aviators fly, but a strong breeze prevented any attempts in that direction. Oldfield negotiated the mile in 52⅘ seconds and the two miles in 1:49. Kerscher drove three miles in 2:49 and turned a mile in 59⅗ seconds. The first day's summaries:

Five miles, stock cars under 300 cubic inches—Won by J. Cheny, Staver; second, Monson, Marion; third, Gelnaw, Staver. Time, 6:04⅘.

Ten miles, stock cars under 600 cubic inches—Won by Livingston, National; second, Clarke, Cutting; third, Edwards, Staver. Time, 11:33⅘.

Five miles free-for-all handicap—Won by Clarke, Cutting; second, Livingston, National; third, Sinsabaugh, Hupmobile. Time, 6:16.

Five miles free-for-all, amateur—Won by Seek, National; second, Schetnitz, Chalmers-Detroit; third, Richardson, Oldsmobile. Time, 5:55.

Twenty-five miles, stock cars 600 cubic inches—Won by Oldfield, Knox; second, Livingston, National; third, Monson, Marion. Time, 28:19.

### Explore Sahara with Automobiles.

Two automobiles, assisted by an aeroplane, are to make a thorough exploration of the Sahara desert, according to the plans of the Imperial Aero Club of Germany. The motor cars will form a basis of operation for the flights of the aeroplane which will bear the brunt of the exploring work. Conditions in the territory immediately west of the Nile valley are to be studied in particular, although the expedition will penetrate as far as possible into the interior, far from the caravan paths. The sum of $180,000 has been set aside to cover the cost of the exploration.

### Prize Winner with 10,000 Roses.

Of many impressively decorated automobiles which have graced parades in various parts of the country, few, if any, have been more strikingly beautiful than the Studebaker-Garford, which constituted exhibit D-44 in the annual Rose Festival parade in Portland, Ore., last month. The accompanying illustration conveys an idea of the manner in which it was transformed into a huge floral gondola, but gives small idea of its real beauty. The entire car was hidden by some ten thousand roses, not to mention hundreds of ferns and grasses, nor the femininity which adorned the whole.




STUDEBAKER CARRYING ITS "BURDEN OF BLOOM" IN THE ROSE CARNIVAL

### P. S. C. Finds Most Crossings Dangerous.

In his report to the Public Service Commission of the State of New York, S. Percy Hooker, chairman of the State Highway Commission, states that a majority of the existing crossings of steam railroads are at such a degree of curvature that their crossing by automobiles at a reasonable speed is dangerous. The question came up when the Public Service Commission was asked to compel the Lehigh Valley Railroad Co. to modify its proposed crossing in the town of Farmington, Ontario county.

## MOTOR CAR AND CYCLE IN RELAY

**Novel Combination Event in Spring Lake Gymkana and Race Meet—Cottage Colony in Competition.**

The cottage colony of Spring Lake, N. J., was out in force to cheer local favorites in the events held on the Spring Lake County Club's half mile track on July 4th.

One of the interesting events was a half mile relay team race in which the first quarter was done in an automobile and the latter half on a bicycle. Arthur Osborne and Stickney Wells, respectively, on the car and bicycle, proved the winners over Fred Swain and Tom Marseilles. Curley-haired Stickney worked harder than ever before in his life. The summaries:

Two mile scratch—Won by Harrington Sickel; second, Arthur Osborne. Time, 3:47.

Ladies' obstacle—Won by Miss Follmer; second, Mrs. Percival. Time, 1:35.

One-half mile automobile-bicycle relay—Won by Arthur Osborne and Stickney Wells; second, Fred Swain and Tom Marseilles. Time, 1:02.

One mile speed judging—Won by John P. Kane; second, Harrington Sickel. Time, 2:57.

One hundred yards high gear race—Won by Miss Follmer; second, H. J. Allen. Time, 0:15.

Ten miles scratch—Won by A. J. Sheehan; second, Stickney Wells. Time, 13:21.

Two miles novelty—Dead heat between Harrington Sickel and Arthur Osborne.

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## FUN ON DENVER ENDURANCE RUN

### Five Days' Contest Ameliorated by Cowboy Entertainments—Both Perfect Road-Score Cars are Penalized.

C. W. Hulbert, driving a Rambler, and A. J. Hamilton, at the wheel of a Jackson, were the only two contestants who came through the Denver Post's 704 miles reliability run on June 28, 2, 30 and July 1 and 2, with perfect road scores. In the technical examination which followed, however, the Rambler was assessed 2 points for a loose wire, and the Jackson incurring heavier penalty for brake trouble, the award went to the former.

The contestants left Denver, Col., Tuesday morning, 28th ult., in the following order at one minute intervals: No. 1, H. D. Colburn, Renault; No. 2, James McDonald, Reo; No. 3, F. G. Gall, Studebaker; No. 5, Gordon Recort, Flanders 20; No. 6, E. W. Swanbrough, Hupmobile; No. 7, Herbert Porter, E-M-F; No. 8, R. A. Norton, Regal; No. 9, A. J. Hamilton, Jackson; No. 10, C. W. Hurlburt, Rambler; No. 11, T. A. Trinkle, Brush; No. 12, Edward Politz and Barney Cane, Haynes; No. 14, O. L. Patterson, Gleason; No. 15, E. H. Scott, Paige-Detroit; No. 16, A. T. Wilson, Firestone-Columbus; No. 17, F. R. Horton, Buick; No. 18, S. M. Newman, Paige-Detroit; T. Brinker, Apperson.

The noon control was at Greely, Col., and all the contestants made the journey without incident, Wilson and Gall arriving first. The citizens of Greely received the tourists enthusiastically, and while lunch was being served Mayor Houston made a speech of welcome. After luncheon the party proceeded to Cheyenne, Wyo., the first day's destination, and 115 miles from Denver. Cheyenne was not a bit behind Greely in extending the glad hand, and the funniest sight was to see the local band doing a sprint to reach the hotel where the tourists stopped, as several of the cars arrived ahead of time. The band played as well as possible under the circumstances, but the wind instrument performers could not join in the opening march until the fourth bar. The first penalizations for the first day were: Reo, 3 points; Flanders, 103; Hupmobile, 10; Regal, 10; Brush, 8; Gleason, 111; Paige-Detroit No. 15, 18; Firestone-Columbus, 49; Paige-Detroit No. 18, 13; Apperson, 3.

From Cheyenne back to Denver was the route followed on June 29th, and when the cars rolled into the Queen City late in the afternoon only six of the 17 competing cars retained clean records. The Gleason and Flanders cars withdrew, but continued as non-contestants. Penalizations for the second day were assessed as follows: Reo, 3 points; Hupmobile, 3; Regal, 3; Brush, 6; Haynes, 3; Paige-Detroit No. 15, 14; Paige-Detroit No. 18, 1. The Gleason withdrew because it could not maintain the high speed demanded over the rough roads with its high wheels and solid tires. A burned clutch necessitated the Flanders' withdrawal.

The third day's journey was from Denver to LaJunta, a distance of 182 miles. Colorado Springs had only a fleeting glimpse of the tourists, but Pueblo turned out in force to greet the motorists and entertain them at luncheon. Rough roads were responsible for many penalizations, while the intense heat also caused many stops for water, also resulting in a loss of points. The only cars retaining perfect scores at the finish of the run were the Rambler, the Studebaker, the Jackson and the Buick. The Brush and Reo were withdrawn, but the latter continued as a non-contestant after having undergone necessary repairs.

Hugo, Col., was the destination on July 1, and a further elimination resulted in only the Rambler and Jackson cars retaining perfect scores. The Buick and the Studebaker both were penalized during the day, but no more cars were withdrawn. The cowboy town of Hugo also turned out to greet the tourists in an original and refreshing manner. After scraping some of the mud from their faces the endurancers were led out to the open prairie, where the cowboys had prepared a feast which was eaten from tin plates, the guests sitting around a roaring bonfire. Then the mayor made a speech, following which the cowboy band, consisting of mouth organ, guitar, jewsharp and and "fiddle," played while other cowboys sang. There was one song about Moses leading the pilgrims across the Delaware and sackcloth frock coats, and another about a pretty young school teacher from Aurora, Ill., who took a trip to "Kalamazoo, France," and "some of them other seaport towns." After the punchers had entertained for a time with songs startlingly original, Judge Miles was prevailed upon to do a "hoe down," that was described as an exact imitation of the Mikado of Japan running for a crowded street car in the streets of Tokio. There was more singing and speechmaking, after which the tourists returned to town, only to find that in their absence the townspeople had decorated the main street from the hotel to the town hall with Japanese lanterns, and that a dance in their honor was about to begin. There was little sleep in Hugo, and the tired-eyed tourists left for Denver the following morning accompanied by a volley of au revoir pistol shots.

Thirteen cars finished in Denver Saturday afternoon, July 2nd, having made the run of 106 miles from Hugo without incident other than becoming stuck in mud holes and a jouncing over rutted roads. After the arrival in Denver the cars were turned over to the technical committee for examination before the announcement of results.

### Elections of Club Officers.

Nortonville (Kan.) Automobile Club—President, B. L. McBride; secretary, P. B. Brunstetter; treasurer, Claude McCarthy.

Walsenburg Auto Club, Walsenburg, Colo.—President, J. B. Johnson; vice-president, Fred O. Roof; secretary, Fred C. Sporleder; treasurer, James B. Dick.

Denson County Good Roads Club, Minnewaukan, N. D.—President, A. E. Huchinson; vice-president, John O. Schulze; secretary, C. A. Ness; treasurer, George Dickinson.

Pensacola (Fla.) Auto Club—President, Dr. Louis de M. Blocker; vice-president, L. Hilton Green; secretary and treasurer, Fred W. Marsh. Directors: George P. Wentworth and Henry Hyer.

Newport (Vt.) Automobile Club—President, Dr. Harry F. Hamilton; vice-president, O. C. Miller; secretary and treasurer, D. N. Dwinell. Executive committee: J. F. Lambert, G. D. Pratt and J. R. Kirkpatrick.

### Kincaid Killed in a Practice Spin.

Thomas A. Kincaid, one of America's crack drivers, was instantly killed at the Indianapolis Motor Speedway yesterday, 6th inst., when his car left the track on the backstretch. No one witnessed the accident. Kincaid in company with Aitken, his racing partner, were tuning their cars at the Speedway and the latter had just finished when the accident occurred. When Kincaid did not appear on the next lap a search was instituted. He was found under the overturned car, and death is believed to have been instantaneous. Although only 20 years of age, Kincaid had made a national reputation as a driver for the National Motor Vehicle Co., of Indianapolis. His last appearance in competition was on the Indianapolis Speedway July 4th

### Gave Kerosene its Present Name.

One Abraham Gesner, of Williamsburg, N. Y., is credited with the invention of the word "kerosene" in connection with his application for a patent covering his alleged discovery of "a new liquid hydrocarbon." Gesner's patent was granted on March 27, 1855, and assigned to the North American Kerosene Gas Light Co. Prior to that time, the equivalent product had been known as "rock oil", so that, although it is not generally known, the kerosene of commerce owes its name to the creation of a trade mark or brand.

### Motordrome First Provides for Aeroplanes.

Work on the projected Philadelphia motordrome at Clementon, N. J., actually has begun, not on the track, however, but on the sheds in which aeroplanes will be stored. The automobile track, it now is stated, will not be ready until next year.

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## GASOLENE PROBABLY WILL GO UP

### Standard Oil's Publicity Man Answers Pertinent Questions—Discusses Possibilities of Alcohol and Kerosene.

Although reports and predictions of a "gasolene famine" and of the raising of the price of the fuel by the Standard Oil Co., and other oil concerns, have been going the round of the press for a year or more, authoritative statements from those high in authority and competent to speak have been lacking. When, however, a Motor World man called at 26 Broadway, J. I. C. Clarke, the Standard Oil's publicity manager, freely discussed the whole subject of gasolene production and supply, and answered the questions put to him unreservedly.

"What is the present state of the supply of gasolene?" asked the Motor World representative. "Persistent reports in the daily papers state that it is in danger of becoming exhausted."

"Although I cannot give you exact figures at this instant," replied Mr. Clarke; "I am inclined to believe that the supply hardly will be equal to the enormous demand. It certainly will not exceed it to any great extent."

"Will the reduced supply—or the increased demand—have any influence upon the price at which it is sold at retail? One of the more important daily papers mentions 25 cents a gallon as a possible price in the near future. Is there any foundation for this report?"

"Undoubtedly the increased demand will have an influence in raising the price. However, the rise will be only a small one, perhaps as much as two cents a gallon, but it certainly will not reach the extravagant figures of 24 or 25 cents a gallon."

"Will the heavy demand have any influence upon the quality of gasolene manufactured?"

"Will you state exactly, in degrees of specific gravity, what you consider quality?"

"Say, the specific gravity of the gasolene generally sold at retail in the garages of this country—will it ever drop as low as 64 degrees?"

"I can safely say that it will not. As you know gasolene is obtained by distillation. In the distillation we obtain fluids of 80 degrees, 78 degrees, of 76 degrees, and so forth—some of it as low even as 64 degrees and 62 degrees. It, of course, remains to be seen whether or not gasolene of 64 degrees is suitable for use in automobile engines. If it is unfit for such use, it manifestly would be foolish for us to manufacture it."

"What is the present state of the petroleum supply?"

"The question is too vague. Oil fields are being discovered all the time and the supply of raw oil is considerably above the demand, so greatly in fact, as to induce some oil well owners to propose building large power houses at the mouth of the wells, using the crude oil as fuel in turning dynamos, and then selling the electricity created by these engines to the whole countryside, and even to more distant cities. Such projects are being talked of on the Pacific coast, and I mention them because they show the abundance of the crude oil. It is not in the scarcity of the crude petroleum that the high price scare finds its semblance of truth, but in the difficulty of providing sufficient facilities for handling the crude oil and distilling it."

"Are there any other sources of gasolene besides the crude oil wells?"

"O, yes! A great deal of gasolene is being manufactured at present from natural gas, and this source will be still further utilized in the near future."

"How does the Standard Oil Co. look upon the efforts being made to substitute alcohol for gasolene?"

"There hardly can be any question of substitution. At present alcohol is not fit to take the place of gasolene, but this company would be only too glad to see alcohol produced in large quantities for industrial usage. It would simplify the gasolene problem considerably, as it would become a kind of supplementary fuel, if the gasolene supply should fall below the demand."

"If the manufacture of alcohol should make great steps in advance and become a commercial success, so as to be sold as low as gasolene—considering the lower heating value of alcohol—would the Standard Oil Co. enter the field as alcohol manufacturer?"

"I doubt that very much. The company has fully enough to do with oil and gasolene and all that pertains to it, to bother about manufacturing alcohol. No, I think we will leave that to others."

"Are there any other fuel supplies in sight which might replace gasolene?"

"Well, yes! I look to an improvement in the hydro-carbon explosive engine, which will permit of crude kerosene being used in the cylinders. It is only a question of providing some kind of arrangement by which the cylinders will be cleaned after each explosion. The residue is the only troublesome thing about it."

### Truck Contest in A. C. A.'s Hands.

A handful of New York tradesmen who have been carefully nursing a projected motor truck reliability contest for some weeks, having watched it peacefully go to sleep, have turned the infant over to the Automobile Club of America, which body has signified its willingness to be mentioned as a possible sponsor for such an affair at some future time, probably in the fall. The press agents of the three manufacturers, whose "entries" had constituted the corporeal portion of the infant, still are active in expressing the eagerness of the same producers to assist in christening the infant at any time it can be roused from its slumbers.

### Red Cross Society Calls a Halt.

Although not generally known, it seems that the right to carry the red cross of the well known design is vested in the Red Cross Society, and that this society is endeavoring to prevent any unauthorized persons, such as practising physicians, from using the insignia on the radiators of their automobiles, which on occasion has served as a good bluff when policemen were encountered. In Baltimore physicians have been given permission by the city authorities to carry red crosses on the radiators of their cars, the display of this sign assuring a free road to the driver of a car, the same as if it were an ambulance, or fire patrol. Complaints which the Red Cross Society has received show, however, that the privilege has been abused, and in order to stop further abuse of this kind the society is calling attention to the fact that the red cross on white background is a copyrighted design, belonging to the society, and that infringers or unauthorized users of it are liable to prosecution.

### Gets Ten Years for "Borrowing" a Car.

Joy riding and the "borrowing" of automobiles are likely to become exceedingly unpopular in Denver, Col., as a result of the sentence imposed by Judge Riddle on Wallace Powers, convicted of entering the garage of Dr. G. K. Olmsted and taking the machine out for a spin and abandoning it afterward. The judge did not take the prisoner's view of his act, and declined to call it anything else but plain and ordinary burglary, sentencing the accused to the penitentiary for a term of from five to ten years. The Denver Motor Club paid a reword of $100 to the officer making the arrest, and has made a standing offer of a like amount for any policeman who arrests and convicts any one stealing a machine from a member.

### Big Verdict for Motor Bus Accident.

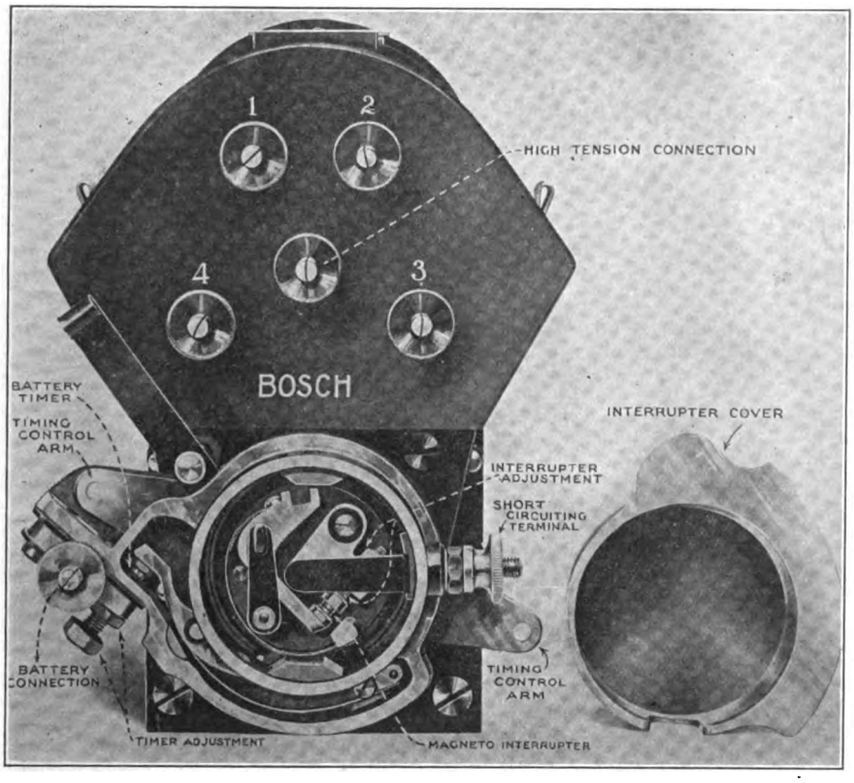
One of the largest verdicts ever allowed in New York county for the loss of a limb has been returned against the Fifth Avenue Coach Co., of New York City, which operates the automobile bus line on Fifth avenue. Alice Philpot, a waitress, 28 years old, has been awarded $17,500 by a jury before Justice Gavegan in the Supreme Court for the loss of her right leg. While Miss Philpot was standing at 49th street and Fifth avenue, on September 24, 1908, one of the company's heavy motor propelled buses skidded, the rear end of the vehicle striking the woman and causing such injuries that amputation was necessary.

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## BOSCH HAS A NEW DUAL MAGNETO

**Modified "DU4" Type Affords Self-Starting for Small Cars—Two Systems Designed to Operate Independently.**

Indicating a growing demand for the method of dual ignition, the Bosch Magneto Co., New York City, just has brought out a new instrument of this type which is applicable especially to machines of medium and low power. Although to the layman a magneto is just a magneto in most instances, the result of close specialization in ignition matters by the Bosch company, has resulted in the development of more than 150 different types and designs of magneto device, each of which is intended for specific application to one or another sort of service. The new system is an adaptation to the dual principle of the so-called "DU4" type, which is an instrument intended for installation upon cars of small power and more or less restricted price.




NEW BOSCH "DU4" DUAL MAGNETO SHOWING INTERRUPTER

Of the true dual form, and built for service through a single set of spark plugs, the system is intended particularly to offer to the user of the small car the advantages of magneto ignition together with the much desired additional feature of self-starting. In other words, when the cylinders properly are charged with gas, the engine may be set in motion merely by touching a push-button mounted in the center of the dashboard starting coil. Although the system is contrived with this basic idea, it also is possible to employ the battery as a source of reserve current in the remote event of the inability of the magneto itself to produce a sparking current.

The accompanying illustration shows the newly developed magneto, which closely resembles the regular "DU4" type, save for an additional binding post on the face of the distributor. This binding post serves to carry the high tension current from the switch to the distributor, whether the current originates in the magneto or in the coil. In the independent magneto of the same general style, the secondary current is led directly from the armature to the distributor through an internal connection. In order to break this connection and furnish means of making contact through the coil when the battery is in use the extra terminal is required.

Another addition to the standard form is the battery contact maker, which is necessary in order to develop the inductive effect in the coil when the armature is out of electrical action. The contact maker is shown in the illustration directly beneath the regular magneto interrupter. Unlike the magneto interrupter, however, it does not revolve with the armature, but is stationary and mounted on the base in such a way that the interruption of the battery current, following the closing of the circuit by the contact maker an instant before, occurs at precisely the same instant as the interruption of the armature circuit in the magneto. In other words, the timing action of the magneto is exactly the same whether the current is induced in the instrument or derived from the battery and "stepped-up" in the coil. In either case the spark at the plugs occurs simultaneously with the interruption of the primary circuit.

The coil which is auxiliary to this form of magneto is of the horizontal type, designed to be mounted on the dash with its front plate set flush, or nearly so, with the dash. The end plate is capable of partial rotation and thus serves the purpose of a switch. It is of such construction that it may be actuated either by hand or with the foot, and it is provided with an individual key lock. As the coil is mounted on the end plate and journaled in its casing, the rotation of the switch plate serves to rotate the coil, thus establishing the necessary contacts in a very simple way.

Ordinarily the battery spark results from a single interruption of the primary current at the battery timer on the magneto. In order to secure the desired effect for starting purposes, however, the coil structure is supplied with a vibrator, which is thrown into action when a little button, located in the center of the switch end plate is depressed. In most instances a four cyiinder engine will tend to stop with its pistons balanced on compression and therefore, with one cylinder on its firing stroke with its piston half way down the cylinder and another on the compression stroke, with its piston half way up. Under such circumstances, the battery timer on the magneto will be open but the distributor will be making connection with the proper cylinder to fire. Occasionally, however, it may happen that the battery timer circuit will be closed, in which case the vibrator will not act. As provision against such a contingency the push button is provided with a double movement. Light pressure merely makes contact with the vibrator and permits the primary current to be broken in case the timer circuit is open. In case it is closed, heavier pressure upon the starting button forces it in to a second position where it has the effect of breaking the circuit through the timer for the time being.

It will be observed that the device ensures absolute independence of the two systems and renders them entirely interchangeable in service, so long as the magneto armature and distributor mehanisms are in order. The battery system thus constitutes an efficient standby in case of accident, as well as fulfilling an important purpose as a starting medium.

### Inspecting the Brake Linkage.

In some types of shaft driven car the brake linkage is placed so low that there is some danger of bending the rods when running through deeply rutted roads or over rough country. As the effect of this would be to alter the adjustment, possibly causing one of the brakes to bind, the linkage should be inspected immediately after a serious bump has been encountered.

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## WHEREIN COMMERCIALS SUFFER

### Disappointment Arising From Unprecedented Situation and Unfair Comparisons—Influence of Pleasure Cars.

While the commercial branch of the industry is advancing by leaps and bounds and rapidly is assuming most encouraging proportions, it is an open secret that some manufacturers find it extremely difficult to realize in practice the results which they have been led to expect. Similarly many motor truck users are finding their operating costs mounting up at an amazing rate and, to all appearances, threatening to become prohibitive. In the estimation of a close student of the industry, this is a condition which should be expected from the very novelty of the commercial automobile in the business world. Branding it as a "logical stage of development," he explains his theory that any dissatisfaction with the present service of the motor truck is due to a lack of adjustment of values rather than to any shortcomings on the part of the machine or any laxity on the part of its makers.

"Although the commercial end of the business is developing wonderfully, while new demands constantly are arising and in many quarters remarkable results are being achieved, there is still a certain amount of discontent to be found," as he observes. "New machines often fail to come up to the expectations of their owners, and, on the other hand, manufacturers and distributors bemoan the fact that their customers' demands are unreasonable, perhaps utterly beyond their own or anyone else's powers of fulfilment.

"The underlying cause of discontent is twofold. Mainly it is due to a lack of means for adjusting values on an equable basis. The other element of difficulty is that the expectations of both producer and consumer have been raised to an exorbitant level. From the beginning of modern civilization the horse has been a necessity, often a household necessity. The cost and value of its service seldom has been calculated in exact terms, frequently it has been as incalculable as the cost of chickens, babies, potatoes or any other domestic yield. In business service it has been much the same as on the farm; while accounts have been balanced in dollars and cents, and all other elements of expenditure equated against return either in money or on some other uniform basis, primary transportation has been overlooked as a factor to be juggled with in accountantship, and minimized or disguised more or less unsatisfactorily in a maze of figures.

"So the advent of the commercial motor vehicle introduces the mere machine, which is bred of a close-figuring era, to a system which is lacking in the very units by which its value must be measured. Under certain conditions one motor vehicle will replace three-horse drawn wagons in point of merchandise movement; but when it comes to contrasting the costs, only in rare instances is there any dependable figure to balance the new expenditure against. In the exceptional cases, mainly those of large corporations, it generally happens that satisfaction is expressed with the work of the mechanical equipment.

"In a way the influence of the pleasure car upon the commercial end of the industry, but more especially of the market, is more or less unwholesome. The customer is apt to expect the same sort of reliability from his truck that he gets from his roadster, and despite greater abuse and less care, he forgets that it is the product of a new study, that it works under totally different conditions, and he even grudges it the outlay for upkeep which his personal car is given unquestioningly. The producer, on the other hand, is still struggling to get away from the conventions of the lighter high speed product, and is only just beginning to realize how very near the ground he must begin in order to build just what he aims to build.

"One element of particular discouragement to both sides of the field is that the consumer frequently becomes imbued with the idea that his requirements are largely peculiar to himself—that his need can be satisfied only with a special vehicle. The producer, mindful of the importance of standardizing his product, is even more eager to convince him of the utility of the stock chassis. This very fact is proving a bugbear to some manufacturers, for the simple reason that it prevents the business from being shaken down into well-ordered and profitable lines. Others, on the contrary, find it more to their liking to build to special requirement than to work along stock lines. Still others are pursuing a non-committal course, and producing special cars only when directly called upon to do so by those whose patronage is particularly sought or is particularly desirable.

"The essential point is that neither on the side of supply nor of demand have conditions been reduced to a systematic basis. Such a state of affairs is rapidly approaching, and already even exists in the few instances of manufacturers who have become conspicuously successful in this line. But for the most part the commercial vehicle industry is just at that trying point where a good demonstration having been given, it is necessary to teach the customer how to employ the goods to the best advantage. It is the stage at which the salesman requires all his fortitude and a good share of that fleeting quality known as optimism. But it is a logical stage of development and one which is rendered critical only when the salesman loses his courage or otherwise fails to carry conviction, which in theory at least no good salesman ever does."

## PAINTS THAT DO NOT PRESERVE

### Expert Points Out Some Pigments Actually Injure Metal—Wreck of Battleship Maine Holds a Good Lesson.

That carelessness in the selection of the materials for the priming coat of paint applied to motor cars may lead the hasty or negligent manufacturer or repairman into difficulties, is the obvious conclusion to be drawn from the remarks of an expert in the preservation of metals from the effects of corrosion. Far from exercising the preserving influence which commonly has been attributed to all pigments by the layman, and by the ordinary mechanic as well, it has been learned that certain classes of paint not only fail to protect the metal in the way of preventing the entrance of air and moisture into the pores of the underlying surfaces, but in themselves cause destructive chemical action.

In a lecture recently delivered before the Cleveland Engineering Society, Maximilian Toch, of New York, gave the results of some of his investigations into the subject of corrosion and the effects of paint and concrete in preventing it. Some paints, he declared, actually produce rust, instead of preventing it, and in this class he placed carbon paints. Incidentally, referring to the preserving effects of paints used on various portions of the battleship Maine, which now lies wrecked in the bottom of Havana harbor, he explained that one class of covering had proved much more effective that any of the others. From the Navy department at Washington, he said he had learned that this was a mixture of Venetian red, white lead, zinc and ocher. Incidentally, he showed that the effects of surrounding chemical substances upon the paint itself must be studied in determining the qualities to be sought in a pigment which is intended solely for the purpose of preventing the decay of the metals which it overlies.

### Trouble Indicated by Oil Drainings.

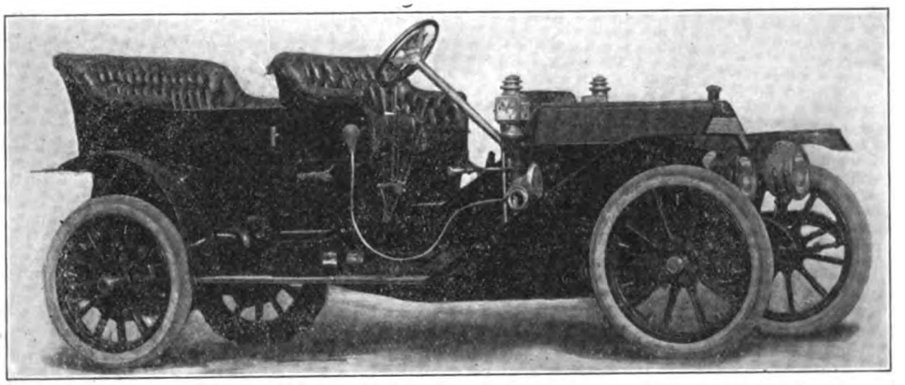
Whenever the oil has been drained from the engine base it is wise to scrutinize it carefully to make sure that no abrasion is taking place in the bearings. If excessive wear or cutting action is occurring, it may be detected by the "feel" and appearance of the oil when rubbed gently between the finger tips. Under such circumstances the fine metallic particles may be detected very readily; while if bronze bushings are used the abraded metal will impart to the oil a characteristic bronze color which is unmistakable. Unless the rejected oil is reasonably free from dirt other than carbon, it is a good plan to make a thorough inspection of all bearings for play, thus locating the difficulty before damage is done.

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## TWO NEW P-S MODELS ANNOUNCED

### "4-50" and "6-40" Sizes Constitute the Additions—Four Varied Chassis Types Comprise New Line.

By the addition of two new models to the line, the inclusive product of the Palmer & Singer Mfg. Co., New York City, is brought up to four chassis, which, in range of power, style of construction and nature of body equipment, is made to assume most complete proportions. Two of the models are driven by six cylinder motors and two by fours. The newest members of the series, which just has been announced in revised form, are a six and a four, respectively. In many respects the complete line is uniform in design. The construction of the engines varies somewhat, however, and it is evident that each chassis has been designed with a view to the scope for which it is intended rather than with an eye to fitting it into a uniform series of vehicles differing from one another only in point of size, power and price. Thus in the case of the new light six cylinder car, a different arrangement of the engine is employed from that which obtains with the 6-60 model. The object is to gain as great an amount of body room as possible; to this end the motor has been fashioned in an extremely compact manner.



PALMER-SINGER NEW 6-40 TOURING CAR

The complete roster includes the "Six-Sixty," "Four-Fifty," "Six-Forty" and "Four-Thirty" chassis models. Needless to say, the range of body designs affords great amplification of this basis and renders the line exceedingly varied. The three larger models, of course, are standard in touring form; the thirty horsepower model, while obtainable as a touring car, is particularly well suited to the purposes of the so-called town car. The cylinder dimensions of the respective models, in the order named, are 4⅞ by 5½ inches, bore and stroke; 5½ by 5¼, 4 by 4¾, and 4 by 4¾ inches. The wheel bases, in the same order, are 138, 129, 125 and 120 inches, respectively.

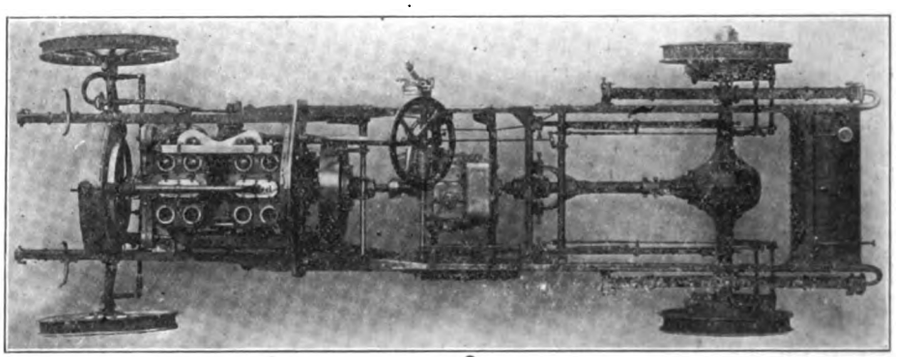
On the large motor, which is said to develop no less than 71 horsepower on the bench, the cylinders are cast in pairs with extremely large valves mounted on opposite sides. To ensure uniformity and good wearing qualities, it is the practice to cast the cylinders, pistons and ring pots from the same metal and at the same pouring. By this means absolute uniformity of expansion is made practically certain. The valves are mounted on opposite sides of the cylinders and are extremely large. The valve lifts are provided with fiber inserts to prevent clattering, the springs are centered and fastened to the valve stems by special spring cups, and the lifts are rendered adjustable by means of set screws which are mounted on the lower ends of the valve stems.

Further refinement is embodied in the timing gears, which depart from ordinary construction in that they are of unusually wide face and are mounted on steel spiders. They run in an independent oil-tight housing and are lubricated by special feeds from the central oiling system. The crank shaft is of hand-forged alloy steel, heat treated and polished. It is supported on large bearings. The connecting rods are heat treated alloy steel drop forgings and are fitted with a babbitt bearing on the crank shaft and a bronze bushing on the wrist pin.

The water circulating pump is driven from the exhaust shaft through bevel gears; this shaft also is provided with a special compression releasing device, which is used for starting purposes. The commutator for the double ignition system, the magneto and the oil pump are driven by a divided shaft actuated through bevel gears from the intake cam shaft. The magneto driving gear is provided with a universal adjustable coupling, which is so contrived as to permit regulation without removing the gear case cover. Further provision is made so that the water and oil circulating pumps can be inspected and adjusted or removed from the motor without disturbing the timing gear casing.

As is customary, the lower section of the crank case is made in such a way that it can be dropped without disturbing the crank shaft bearings in any way. The base is cast of aluminum of high tensile strength. The motor is hung from the main frame by means of four arms cast integrally with the upper portion of the case.

The oiling system for the motor is a little out of the ordinary in that it affords means for lubricating the cylinders directly. The source of supply is the gear pump, which raises the lubricant from the reservoir, which runs the entire length of the crank case, and feeds it through special ducts formed integrally with the crank case to the crank shaft bearings and the cam shafts. In addition to the independent feed to the timing gears, another lead carries a portion of the supply to the sight feed glass, which is located on the dash; from which point it is fed to the cylinders through a pet cock by which the amount of flow can be regulated at will. The crank case is separated into compartments by integrally cast webs, the compartments also serving as settling pans for the overflow oil, which is drained off from the rear end of the crank case to the sump below. The connecting rod caps dip into the individual reservoirs beneath the cylinders and the splash thus formed serves the bearings with oil. A sight feed glass is mounted on the outside of the crank case on the left hand side of the motor, thus enabling the level to be ascertained at any time.

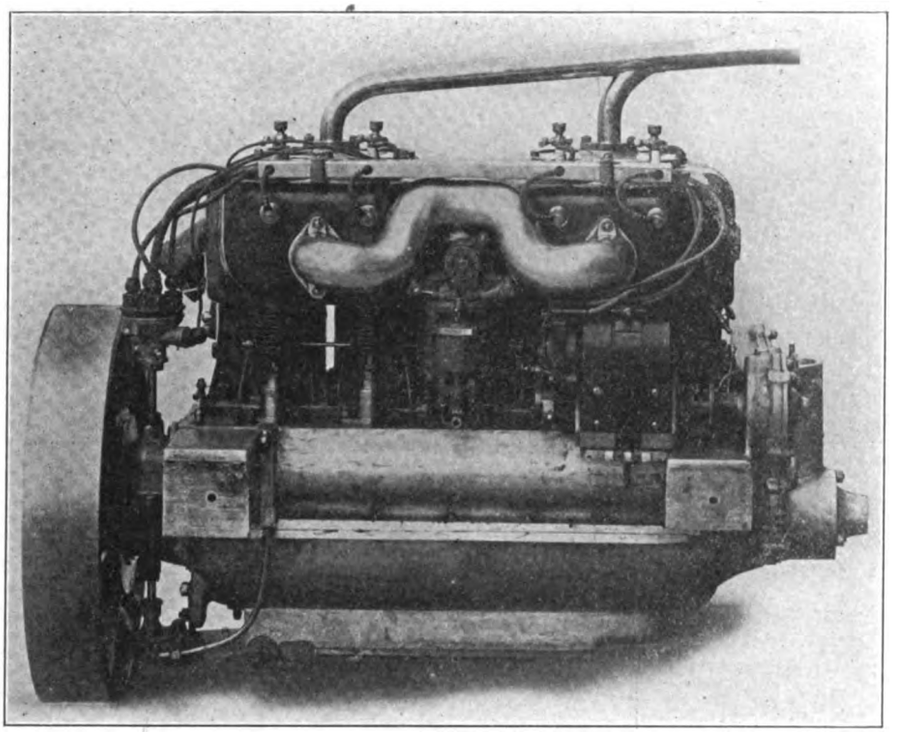


PALMER-SINGER NEW 4-50 TOURING CHASSIS

The carburetter employed is the special form of multiple jet device which is a Palmer & Singer invention and which was described in detail in these columns recently. It combines with the multiple jet features an ingenious throttle linkage

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whereby the poppet valves which close the intermediate and high speed Venturi tubes are held to their seats by mechanical means except when the throttle damper is partially or completely opened. Thus, should the car be bounced severely while running on a nearly closed throttle there would be no danger of upsetting the carburation in consequence of disturbance to the valves.



PALMER-SINGER NEW 50 HORSEPOWER FOUR CYLINDER MOTOR

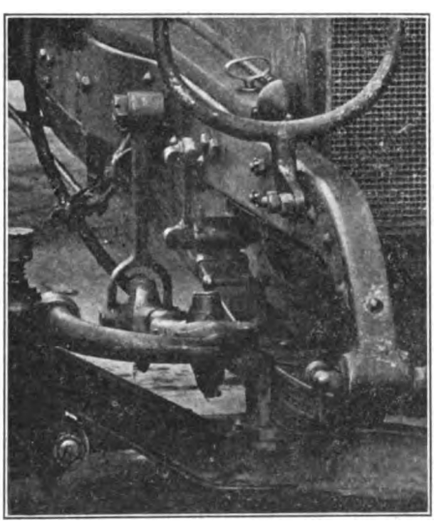
When the motor is running at half speed or full speed, the suction is sufficiently strong to overcome any possible inertia effect in the valves.

The motors employed on the three smaller chassis differ from the large motor in respect to their cylinder dimensions and also in the following points: In the new six-cylinder motor, the cylinders are cast in groups of three, instead of in pairs, while an annular ball bearing is used on the forward end of the crank shaft, instead of a plain bushed bearing. In the 30 horsepower, four cylinder motor, the valves are mounted on the same side, and therefore but a single cam shaft is employed.

All of the motors have been designed for high tension dual ignition with independent sets of spark plugs, both of which uniformly are located on the inlet side of the motor. The magneto equipment is a Bosch product. A battery high tension distributor is provided as well as a vibrator coil which is mounted on the dash. It is possible to use the systems interchangeably or simultaneously.

In all models the master clutch used is of the multiple disc pattern with 47 sawsteel elements. In the two larger models the clutch is encased in the flywheel; in the two remaining models it is housed in a special compartment of the gear box. The change gear system is of the sliding pinion selective pattern, affording four forward speeds with direct drive on the fourth, as applied to the "Six-Sixty" and "Four-Fifty" models. In the two smaller models the direct drive, or normal running speed, is on the third ratio.

Final transmission universally is by cardan shaft. Two universals are employed, one at either end of the gear box. The propeller shaft is enclosed in a torsion tube, which forms a solid housing with the differential casing on the live rear axle. The latter is trussed for strength and provided with a large inspection plate through which easy access may be had to the differential and driving mechanism. Double, internal expanding and external contracting, brakes are employed.



HEAVY STEERING LINKAGE

Except on the town car model, all chassis are mounted on 36 inch wheels. The wheels are roller bearing mounted on the larger cars, but run on ball bearings on the smaller chassis. Semi-elliptic springs likewise are employed on all except the smallest chassis; that is mounted on three-quarter elliptic suspension in the rear. The frames of the larger models are trussed underneath and reinforced in front. The smallest of the quartet is supplied with a drop frame suitable for the low-hung body structures which it is intended to carry. On all models steering is by a worm and nut device, which is encased in a bronze housing. The steering linkage is minus the familiar ball and socket connections but is furnished with double yoke couplings liberally supplied with grease cups. The front connecting rod is carried back of the axle.

### Invents Puncture-Proofer for Tires.

For puncture-proofing purposes an English inventor has devised a tube protector which is adaptable to any tire of ordinary construction. The protector takes the form of an inextensible canvass liner, which is placed over the tube before inflation and which contains a supposedly non-puncturable filler embedded over the tread portion. At the sides, the protector tapers off to a feather edge near the rim. The object is to equalize the pressure on the inner tube and to cause a low pressure on the tread. Under test, it is said that one of the protectors was run for 500 miles in a shoe which had been gashed down to the resistant material without yielding in any way, even though highway conditions encountered were such as to cause three other tires on the same car, which were of normal construction, to fail at one time or another.

### Gabriel Produces a Four-Tone Horn.

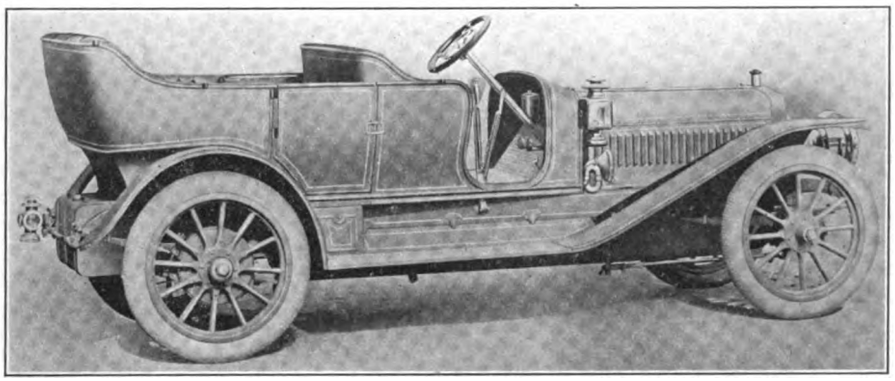
No little marvelling was indulged in by the uninitiated when the first single tube, three-tone Gabriel horns appeared as a new type in the line produced by the Gabriel Horn Mfg. Co., of Cleveland, O., but for 1911 the company is going even further and is bringing out a type of exhaust horn that while being but a single tube, has four notes, or one more than any single tube horn the company hitherto has made. The new model is styled the No. 4 four-tone horn, and sells for $35 in the regular polished brass finish, or $1 additional for any special finish, such as oxidized, black lacquer or nickel plate. The size is 3 x 32 inches, permitting convenient attachment, and the horn is designed especially to withstand high exhaust pressure, so that it is suitable for high powered cars. All of the present models will be continued, despite the addition of the No. 4 to the line.

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## HOLDS TO SIX CYLINDER POLICY

**Winton will Continue in Making no Other Type—Modifications and Refinements —Specifications of 1911 Chassis.**

Evidently standing solid in the conviction that "it is a good thing to know when to let well enough alone," the Winton Motor Carriage Co., Cleveland, O., has announced the continuance of the exclusively six-cylinder policy which it has been encouraged to maintain for several years, and also the continuance with minor changes only of the Winton Six car, a model which, upon July deliveries, passes into its fourth year. As in the past, the car will be offered with a variety of body options. The standard form is the seven passenger car. In addition, there is a complete line of limousine, landaulet, small tonneau, torpedo and roadster bodies.

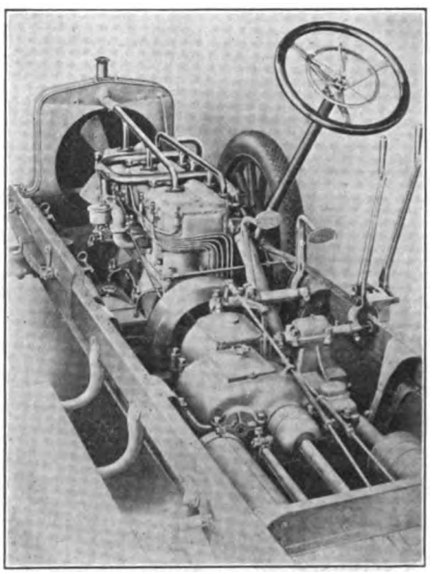


LATEST MODEL WINTON SIX WITH NEW STYLE TOURING BODY

In preparation for the production of a new series of the car, naturally, certain alterations have been brought about, most of them being not only of a minor nature but inconspicuous in their effect on the general appearance of the machine. In the case of the standard body, even, the alterations, while apparent and significant in bringing the car into line with the most recent trends of body delineation, still are not sufficient to impair its identity with former products of the same line. While the general body outline is much the same as in the current model, a little more of the dustless, straight-sided effect has been obtained by substituting sweeping panels for abrupt angles and considerably reducing the amount of raised moulding. Thus the new front seat has no overhang, the sides of the rear seat are brought down to the level of the rail in a smooth curve, and the dustless effect which is so much desired just now is materially assisted by the use of a deep skuttle dash.

Most significant among the mechanical features of the machine is the continued application of the self-starting device, which eliminates the necessity of cranking and permits the starting handle to be carried in the tool box as reserve equipment. The starting mechanism consists of a single rotary distributor valve, which automatically selects the cylinder next in order of firing, when it is desired to start the motor, and directs into it a charge of compressed exhaust vapor which is held in a storage reservoir at sufficient pressure to move the engine. As soon as the first piston has been forced over the ignition point the charge of gas in that cylinder, which has been left over from previous running, is fired and the motor is set in operation. If the first cylinder happens not to contain a charge of combustible vapor, the motor is revolved by direct thrust and expansion of the starting charge until a fresh volume of gas has been drawn from the carburetter. Thereafter the engine takes up its regular cycle automatically.

The cylinder dimensions are 4½ by 5 inches, and the cylinders are cast in pairs and offset from the crank shaft to reduce engine friction. As both sets of valves are mounted on one side, only a single cam shaft is required, and the neat appearance and general cleanliness of the motor further is enhanced by the application of removable cover plates to the cases which house the valve springs and lifters. The magneto and circulating pump are located on the same side—the right, but the carburetter is placed on the left side. In common with a majority of the equipment, this is entirely a Winton product. As heretofore, it has a single jet, but double throttle arrangement. Ignition is by the Bosch dual system, with a single set of plugs and a dash-mounted coil which carries a vibrator to be used for starting purposes.



VIEW OF POWER PLANT

Transmission is carried out by means of a multiple disc clutch, selective sliding pinion change gear and propeller shaft to the full floating rear axle. The clutch and change gear are mounted in a unit housing carried on the frame independently of the engine. The clutch is made up of 67 saw-steel elements revolving in oil. The change gear affords four forward speeds in addition to the reverse, with direct drive on the third, or normal running speed. The fourth speed is geared above engine speed. Both the clutch and change gear run on annular ball bearings. The front and rear wheels, on the other hand, and the live portion of the rear axle, are mounted on Timken roller bearings.

Semi-elliptical springs are employed both in front and in the rear. In the rear, the frame is raised by a substantial amount to permit low suspension of the body without impairing the necessary axle clearance. In front the frame is narrowed to provide a wide steering lock. The wheel base is 124 inches; the wheels are 36 inches in diameter, both front and rear. As in the past, the chassis is obtainable with a variety of gear ratios, thus rendering it adaptable to a variety of highway service conditions. Tire inflation is provided for by an attachment to the self-starting device, allowing air from the pressure tank to inflate the tires, without pumping.

### Suggests Substitutes for Old Terms.

Turning from a pondering on the graver matters of the automobile industry, the Association of Licensed Automobile Manufacturers has found time to take up a consideration of some phases of the nomenclature of the trade, and has picked a fight with the terms "pleasure car" and "commercial vehicle." At last week's meeting of the Association, the discussion developed a sentiment to the effect that these terms are regarded as being in a sense "unfair to the trade as a whole." The use of "commercial cars" to denote freight carrying automobiles was condemned as a misuse of terms, inasmuch as "all automobiles are commercial and practicable," according to the Licensed Association. The general opinion, it is indicated, seemed to be that automobiles should be termed "passenger automobiles" and "freight automobiles," in the same way that railroads term their equipment "freight cars" and "passenger cars."

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## MONEY LOST IN MEXICAN RUBBER

### Conditions Militating Against its Successful Cultivation Explained—Difficulties and Mistakes of Promoters.

People with a little cash that yearned to be invested a few years ago were beset by those who were nourishing various projects for the development of Mexican rubber. Stock companies were formed, plantations started and, incidentally, a good deal of ready money was collected by the promoters. In view of the present rather tense situation in the crude rubber market, especially because of the intimate relation which that situation bears to the price of automobile tires, it is interesting to learn of the outcome of the attempt to boom Mexico as a rubber country.

That Mexico produces a certain amount of cultivated rubber in addition to the native rubber which it has produced for many years, there is no question. But it is the opinion of United States Consul William W. Canada, who has investigated the subject very thoroughly, that not more than 20 per cent. of the rubber produced in the state of Veracruz, his own district, during the year 1908 was the product of cultivation. Since the boom of the rubber planting industry, in 1897, Consul Canada estimates that probably 50,000 acres actually have been planted with the "Castilloa" tree. At the present time more than half of the acreage has been abandoned, having proved a complete failure, while the remainder is supposed to be producing just about enough rubber to cover expenses, with a possible margin of slight profit during an era of reigning high prices such as prevail just now.

In reporting on the situation the Consul explains that in some instances ordinary laborers may be found in charge of the plantations which were started a few years ago on expectations of most fabulous profits. The laborers, in return for their services as caretakers, are privileged to gather whatever rubber they can. In other instances, one or two of which he cites specifically, principal stockholders in the holding companies have assumed control for the protection of the creditors and are running along, barely covering expenses and hoping for soaring prices which may bring them salvation. In a very few instances, particularly in cases where there has been no stock jobbing end to the enterprise, owners are receiving a fair return on their investments. In other cases, it may be observed, returns are being obtained from other products of plantations which were started with rubber as the principal crop.

The general failure of the movement as a whole Consul Canada ascribes to a variety of reasons, reasons which, broadly speaking, may be summarized under the general heading of too hasty promotion. In the first place, the question of the age at which they gain their greatest yield never has been settled in a perfectly satisfactory manner. Promotion literature commonly has placed it at from three to six years, but experience has shown that the latter age is the more reasonable expectation. Thereafter, good trees may be expected to increase their yield from 10 to 15 per cent. per year up to 12 years of age. Beyond that age, no figures are obtainable.

Variation in labor costs, lack of provision for adequate shipping facilities, and overexpectation of the quantity of rubber in the first few harvests are among the principal causes of disappointment to the planters. In some instances a yield seven or eight times the amount actually received had been confidently expected.

Furthermore, a serious mistake was made at the very outset in the assumption that because the "Castilloa" was a native tree, climatic conditions throughout that part of the country were properly suited to its cultivation. Time has proved that such is not the case, and many plantations were located in places where successful rubber cultivation is a practical impossibility. Added to this the Consul observes with a touch of sympathy for the deluded investors, "that 90 per cent. of the numerous plantation companies that have operated in this consular jurisdiction were managed in an incompetent and even corrupt manner."

During the year 1908 the total rubber production in the state of Veracruz amounted to but 387,417 pounds. In past years prices at shipping points have ranged from 45½ to 79½ cents, United States currency, per pound. Recently, however, the effect of the boom prices has been manifest, and those who have been able to ship in quantities have received as much as $1.48, United States currency, per pound. In this connection it is somewhat enlightening to observe that since the recent rise in prices, representatives of English companies have appeared in the district negotiating for the purchase of rubber plantations.

### Removing Carbon from Exhaust Pipes.

When cleaning the pistons and cylinder heads of an engine which is badly carbonized it is a good plan to examine the exhaust manifold and muffler carefully, removing from them as much of the accumulated soot as can be reached. The reduction in area of the passages from this cause, together with its effect in retarding the flow of the gases, has a very noticeable influence in cutting down the power of the machine. In the case of chemical decarbonizers, the preparation may be introduced into the exhaust pipe through the exhaust valves. Heavy muffler explosions may follow such an attempt, however, owing to the combustible nature of the decarbonizer.

## AUSTRIANS KNOW AMERICAN PRICES

### They Refuse, Therefore, to Pay Double Prices for American Cars, According to Consul Denby of Vienna.

Generally speaking, the development of the automobile movement is supposed to be governed locally by highway conditions as much as anything else. United States Consul-General Charles Denby, of Vienna, however, adds to the poor roads handicap another, namely the opposition developed by lovers of the horse. This is stronger in the Austrian Empire than in any other country, he asserts. Considering Austria as a field for American exploitations, he discovers a good opportunity masked by the need for careful selling methods such as appertain universally in connection with the export business.

"There are at present 8,000 automobiles in Austria, of which 3,500 are in Vienna," Consul-General Denby states. "These machines, as a rule, are low powered—14 to 18 and 16 to 18 horsepower, although some 28 to 32 and a very few 45 horsepower machines are found. The prevailing type is the landaulet and limousine, these being considered the most suitable to Austrian weather conditions.

"Nine companies are manufacturing automobiles in Austria, whose total output was 1,600 machines in 1909. The carriage builders of Austria have a reputation for turning out bodies of high excellence, and the practice of the auto factories is to quote for chassis apart from the carrosserie, although quotations for complete machines can be had, if wanted. . . .

"The American automobile has secured no foothold in this market, but there is certainly a demand here for small, strong, high-power machines, if they could be sold at rates approximating those in the United States. The comment made on previous efforts (of which there have been several) to find an opening for the American product, is that prices were increased over those advertised at home out of all proportion to the added cost of shipment, duties, etc. The advertised prices in the United States are well known here, and when these are doubled, as they have been, for Austrian delivery, the chance of sale is killed. The American trade is at present insignificant, but it is certain that a good cheap American machine, introduced in the right way with vigorous agents and intelligent advertising, would have a large sale. This market is decidedly well disposed toward American manufactured products, but patience and energy are necessary in order to bring them to the public notice. Success in other lines, after initial discouragement, should be an example to the automobile maker to persevere."

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## GIVES VISION OF A 1915 MODEL

### Foreign Expert Prophesies its Specifications —Includes Valveless Engine, Worm Drive and Helical Suspension.

Valveless engines of the V-type, front and rear wheel brakes, helical suspension springs, worm drive, wire wheels and bodies of the "dustless" pattern, evolved, perhaps, from the present torpedo types, but having also the protective and convertible advantages of the present-day landaulettes, are features which for the most part are regarded as novelties now, but which many students of automobile matters regard as holding great promise for the future. M. Baudry de Saunier, the well-known French engineer and editor, is one such, and with a possible desire to mask his opinions under the filmy disguise of prophesy, he has embodied them all in his vision of a car of 1915.

The salient points of the design thus conjured up at first do not seem to be particularly radical, especially since nearly all of the features involved at present are known and used in one form or another on cars produced in different countries or by different builders. Thus the entire stripping of the running boards of all encumbrances, save possibly the spare wheel, is a point gained by many torpedo types. So, too, is another point, that gained by eliminating the familiar sod or dust pan in favor of an enclosed power plant, mounted on a sub-frame, with protecting strips of sheet steel enclosing the space between the main frame and the inner supporting structure.

A more radical feature is the entire elimination of side control levers so as to afford equal access to the driver's seat from either side. The steering wheel is provided with two small levers, one controlling the change-speed gear, and the other a finger piece, which serves only to block the rear wheel brake pedal, and so prevent the brake being released when the engine is being started or when the car is at a standstill. There is also a front wheel brake pedal, but there is no brake on the transmission. The dashboard is utilized as a fuel tank, giving a positive gravity feed to the carburetter, which is placed in a warm spot in the apex of the eight-cylinder V-type motor, so as to require no water heating.

The eight-cylinder engine, which is a conception carried out with considerable detail, is given a bore and stroke of 65 by 120 millimeters, respectively, or about 2 19-32 by 4 13-16 inches. It is formed with all the piping and distribution ports cast with the cylinders. Ignition is by high tension magneto; the carburetter, an automatic one with two jets; and the radiator, which is provided with a fan, is located above the cylinder heads and arranged to work on the thermo-syphon system. The lubrication is carried out automatically, the only external fitting being the head of a small gauge which indicates the oil level, similar gauges being fitted to the gear-box and differential case.

The type of clutch and change-speed gear employed are not specified, but the transmission from the latter is by rigid shaft enclosed in a tubular torque rod to a single flexible joint connecting with a worm pinion meshing with a helical gear, the rear end of this drive being suspended from two cross members of the chassis in a casing which also encloses the differential gear. The latter drives the rear wheels through a suspension system consisting of a pair of universal joints on the inner ends of the two portions of the live axle, and braces which are hinged to the differential casing, and which with their outer ends form collars supporting the live shafts close to the wheels.

The principle of the transmission system, it will be perceived, already is realized in one or two European chassis designs, most notable of which is the DeDion. The suspension system, however, though suggested in one or two proposed arrangements which have not come into general use, appears to be largely a creation of the author's brain. It is distinguished by the entire elimination of the elliptical form of flat leaf springs and the substitution for it of the helical spring together with a species of compensating mechanism which is adjustable in such a way as to be adapted to various local highway conditions.

Attached to a depending rear "horn" of the frame, much like the present dumb iron in exaggerated form, are heavy bell-crank members, one at each end of the rear axle, the lower and horizontal arms of which serve the purpose of distance rods and drivers. The vertical arms of the bell-cranks are attached directly to the rear ends of a pair of long helical springs which reach forward above the axle and are joined at their front ends to the extremities of a compensating lever, which extends across the frame just in front of the differential housing. The compensating bar, besides having a rocking action, which permits it to shift a portion of the load of one spring on the other, is made adjustable fore-and-aft of the chassis; thus providing means for varying the tension of the springs to suit highway conditions.

### Leaks in the Inlet Manifold.

One of the rare instances in which the vibration of the car, or the influence of unusually severe road shocks can affect the operation of the motor is when a leak exists in the intake manifold, or when one or more of the joints are loosely connected owing to the looseness or loss of one or more bolts. Under such circumstances, the effect of vibration will be to cause the leak to vary, thus upsetting the mixture.

## PERIL IN CRANKING ON "BATTERY"

### Back-Kicks may Result, if Battery Current Leads Through the Magneto—Explaining the Phenomenon.

Certain types of ignition system which are designed to permit starting on battery current but normally running on the magneto are prone to develop a rare though puzzling difficulty at times in the form of unexpected backfiring. Though this occurrence may be so rare as to be unknown to the average user, the very possibility of its existence, according to the hypothesis of the Automotor Journal, is sufficiently threatening to make it well worth while never to attempt to start on the battery by means of the crank. If the cylinders are filled with gas by cranking with the spark cut off and the switch is then cut in, there is no liability of injury resulting should the difficulty arise.

The system to which reference is made is that in which, instead of a special spark coil for use with the battery, the magneto armature is employed temporarily as a transformer, a special form of circuit breaker being thrown into action for the time being. Says the authority mentioned:

"This is a very simple and effective means of starting, but it essentially involves a certain constructional alteration in the magneto, which may be best described by saying that the contact-breaker cam is turned inside out as compared with its orthodox form. The immediate and obvious result of this change in design, considered from the electrical standpoint, is that the magneto armature circuit is normally open instead of normally closed; the closing of the circuit being so arranged by the cam that it takes only just a sufficient time before the break for the current in the armature coil to grow to its maximum value. A magneto operated in this way is capable of working just as effectively, so far as we have observed, as one that embodies the ordinary system of a normally closed circuit, and there is, of course, the advantage that it enables a battery temporarily to be switched across the armature, so that a hand-controlled break of the circuit results in producing a spark within the correct cylinder.

"There is a very curious and highly important subsidiary result of the use of the 'inside-out' cam, however, which gives rise to a phenomenon that is apt to make itself painfully apparent to the unwary motorist, and as it took us some considerable time to locate the cause thereof, it may not be without interest to explain the details. The phenomenon in question is the more mysterious as it is only to be observed when an engine thus equipped is, for any reason, cranked by hand prior to, or instead of,

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starting on the switch. As every motorist of experience knows, the success of switch starting depends entirely on the presence of an explosive mixture in the cylinders at the time the spark takes place, and if for any reason the engine has not been stopped in a suitable manner, or is in any way leaky, it will not start on the switch, however effective the switch-starting may be from an electrical standpoint. In the event of the engine refusing to start, the chances are that the motorist would leave the switch on, and ignition-lever retarded, and proceed to crank the engine by hand.

"Now it is a common feature of magneto ignition that an engine very frequently refuses to start with the timing lever retarded, and if this is the case with the engine in question, the motorist will fail to produce the desired result after the initial pull-up or wind, as the case may be. This is where the danger comes in. Just as he realizes that the conditions are not suited for starting there will be a sudden and most unexpected back-fire coming after he has ceased cranking, but it takes place so immediately afterwards as often to catch the unwary. Anyone would, however, immediately be impressed with the fact that something mysterious had happened, and the first idea would very naturally be that the battery circuit had in some way come into operation through a chance connection. Search, however, would reveal no clue to anything wrong with this circuit.

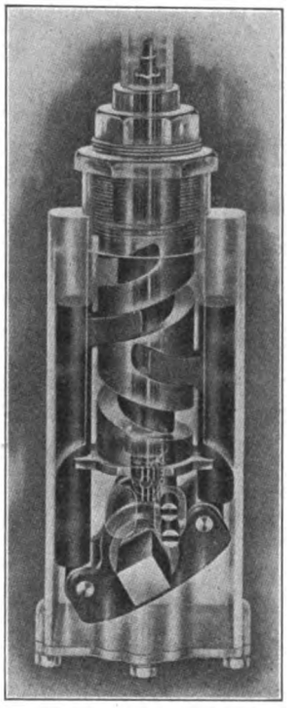
"The real cause of the trouble is this: when an engine has been cranked by hand, and has refused to start, the force which brings it to rest is the compression in the next cylinder, and it may be observed, if anyone has the curiosity to watch the action of a fly-wheel under such circumstances, that the final action immediately preceding the state of rest is a momentary reversal of rotation through a few degrees.

"It is this reversal that causes the mysterious back-fire in question. The magneto has been fully retarded in respect to the ordinary direction of running, but in conjunction with the double-acting cam the same setting of the lever implies that the magneto is fully advanced, if the direction of rotation is reversed. In other words, the piston has traveled sufficiently far on its upward stroke to cause the armature-circuit to be closed; and then its return movement is every bit as effective in causing the rearward face of the cam to break the armature-circuit as though the other face of the cam were to sever the contact-points in the normal manner. Everything is, moreover, admirably suited for an effective spark, even at very slow speeds, and the cylinder, having been charged with explosive mixture as the result of cranking, instantly fires. The reversal also causes the inlet-valve to open, so that the explosion flashes back down the induction pipe.

"Any engine is subject to this same momentary reversal of rotation, but the effect produced is not the same with the orthodox type of magneto, for the simple reason that it does not have to 'make' the circuit just prior to the normal 'breaking.' If the armature continues to rotate forwards the break occurs too late to produce a spark, but if it rotates backwards, ignition almost certainly takes place—with the above-mentioned very astonishing result. . . . The absolutely safe solution to the difficulty is to make a practice of 'winding' the engine with the switch off, and thereafter to start the engine by the press-button. This is the more to be recommended, inasmuch as it emphasizes the purpose of the switch-starter, and will gradually lead to a maintenance of the conditions that render switch-starting effective."

### Steering Gear that is "Gearless."

Relying on the action of spiral cams which displace all gear or screw and nut



arrangements such as commonly are used, the gearless steering gear just has been introduced by the Gearless Steering Device Co., Indianapolis, Ind. As the accompanying picture shows, the actuating member, which is mounted solid with the base of the steering shaft, is formed with two helical cam grooves on its surface, one cut right and the other left handed. Into these grooves fit appropriately formed yokes, one on either side, which are integrally formed on sliding finger pieces which travel parallel to the steering column. As the steering wheel is rotated, one finger piece is moved up and the other down, and as the base of each rests upon a hardened steel roller which is riveted to a double rocking lever on the horizontal motion shaft, it is evident that complete control of the movement of the latter is obtained at all times. Adjustment for wear is accomplished by taking up the nut and check at the top of the device, which provides means for absorbing all needless play. The group, as shown, also includes telescoping control rods and suitable means for connection with carburetter and spark regulating members by means of a rack and pinion system.

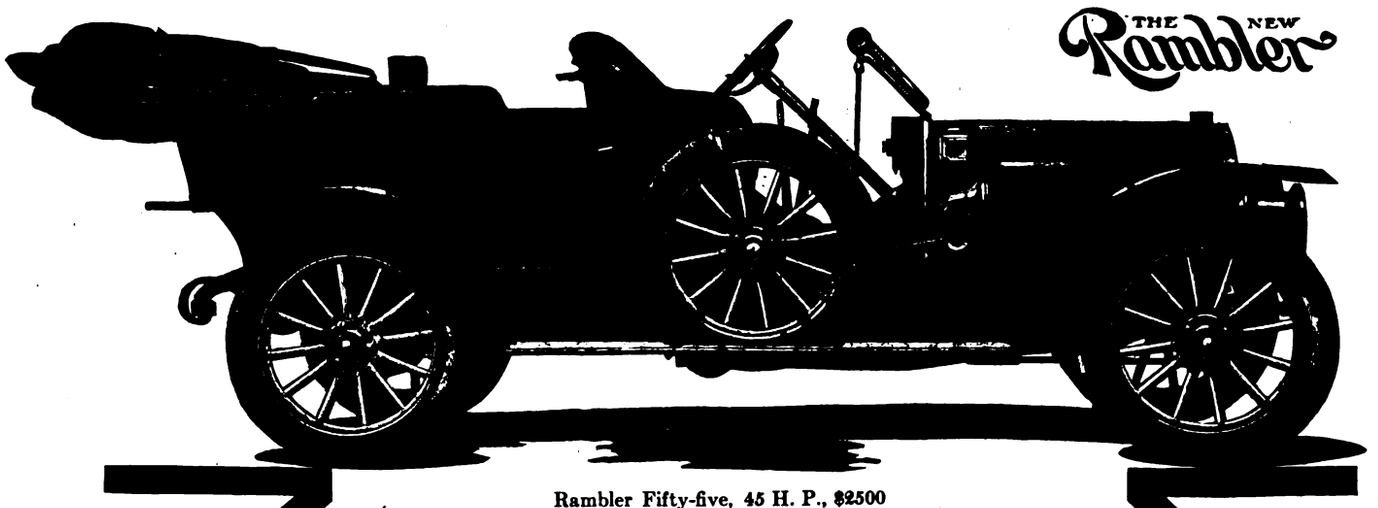
The same general principle also is applied in a steering gear which is designed for light cars of the runabout class, instead of for roadsters and touring cars. like the larger device. In the smaller arrangement spiral cams are mounted on the primary motion shaft in reverse position. They bear at all times against the rollers on the rocking lever, which, in this case, is placed at one side of, instead of below, the steering shaft. As in the other device, adequate provision is made for taking up wear.

The Gearless Steering Device Co. also is producing a form of ball-bearing universal joint, in which the usual central cross is done away with and Y-shaped end sections are employed. The central member of the joint, which is a single-piece ring, provides means for assembling and adjusting the four balls, which are "halved" into place between the ring and the ends of the shaft members. A particularly neat and effective method of locking the adjusting screws is employed, which is both ingenious and effective in protecting the joint against failure through loss of adjustment.

### Portable Light with Cord Reel.

Portable electric lights, such as are used in garages and repair shops, generally have the objection that their connecting cord presents an awkward array of tangles and long loops, being in most cases either too long or too short for the job. A device, which, while designed primarily for household purposes, nevertheless is claimed to serve a valuable function in such situations. has been brought out by the L. A. Williamson Co., of Boston, Mass. It is known as the Flexilyte, selling for $5, and containing a reel for about 15 feet of lamp cord, together with a socket for holding an incandescent bulb. The cord, which has a standard attaching plug that will fit into any standard fixture socket may be unwound to any desired length within the fifteen feet maximum, after which it may be held fast by means of a sliding catch. If used as part of the traveling equipment for a car, it is not necessary to carry a bulb, as a standard incandescent lamp fits the Flexilyte socket and may be transferred from the wall fixture or electrolier to the Flexilyte case. The attaching plug at the end of the cord is then placed in the fixture socket where the bulb has been removed, after which the case may be laid horizontal on floor, bench or table, with the bulb standing upright, or may be hung vertically on any part of the car by means of the cord.

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## PRODUCING GRAPHITE FROM COAL

### Its Manufacture Accomplished by Electric Furnaces—How the "Deflocculation" Process was Discovered.

Familiar as is graphite, not everyone knows that means have been found for its production by artificial means and that now a large proportion of the kind that is suitable for lubricating purposes is produced direct from cheap anthracite coal by the application of intense electrical heat. This production is comparatively recent, and the inventor of the process, Dr. Edward G. Acheson, of Niagara Falls, N. Y., who also is the inventor of carborundum, in giving an address on "Graphite" before the National Gas and Gasolene Engine Trades Association, at Cincinnati, O., on the 14th ult., has revealed the manner in which the discovery was made and the methods that are used for producing "deflocculated" graphite. Dr. Acheson said in part:

"Having the opportunity to use a comparatively large electric current, in March, 1891, I thought I would take up a series of experiments for the production of an artificial abrasive. These experiments resulted in my devising methods whereby a mixture of ground coke and sand, when subjected to a high temperature in an electric furnace, were caused to undergo chemical changes, the oxygen of the sand passing off with a part of the carbon as carbonic acid gas, the reduced metallic silicon associating itself with an equal atomic weight of carbon, resulting in the production of a new body up to that time unknown. To this body I gave the name carborundum.

"Very early in the manufacture of carborundum, which is produced at a temperature much beyond that of the vaporization of silica or sand, which has always been looked upon as one of the most durable linings for metallurgical apparatus, I found that when carborundum in the electric furnace was carried to a temperature very much higher than that of its production, decomposition occurred; the silicon portion of the carborundum would be volatilized and the carbon portion would remain as graphite.

"This carbon originally was in the form of ground coke such as is made from bituminous coal, but here I found that after having been associated with silicon in chemical combination, then freed from this association with silicon, it was transformed into one of the other allotropic forms of carbon appearing as graphite.

"The large electric currents with which the carborundum furnace is operated are carried into the furnace by means of carbon conductors or electrodes, and these were originally made in the form of rods composed of coke resulting from the distillation of petroleum, this coke being ground to a powder and mixed with tar as a binder, formed under pressure and heated to a bright heat, decomposing and partially volatilizing the tar. In operating the carborundum furnace, the inner ends of these carbon rods or electrodes were invariably converted into graphite forms of carbon, and this, together with the decomposition of the carborundum and the resultant formation of graphite, caused the taking up of experiments for the development of a commercial method of making graphite.

"The first commercial graphite produced was in the year 1897, when there was manufactured a little more than 162,000 pounds of graphite rods to be used as electrodes in electro-chemical work. These rods were produced by the direct conversion of non-graphitic carbon rods, made from the residue of petroleum, into rods of graphite that were practically pure graphite through and through.

"Simultaneously with the development of the manufacture of graphite electrodes, there was conducted work on the manufacture of graphite in bulk, in the form of grains, powder, etc. The best crude material from which to make graphite was found to be anthracite coal, and this now has become quite a large business. A very large percentage of the dry batteries manufactured in the United States are now filled with this artificially made graphite.

"In the summer of 1906, during an experiment for the production of a product in the electric furnace quite foreign to graphite, there was noticed in the output of the furnace a small amount of a very soft, non-coalescing graphite, which at once was recognized as being of a character that would make it valuable as a lubricating graphite. All of the graphite that had been electrically produced up to that time had been of too hard a nature. Following up the discovery of this small amount of soft, non-coalescing graphite, methods were worked out for the commercial manufacture of this product, using as crude materials the cheaper grades of anthracite coal, and even meeting with success when using the waste from the anthracite coal mines—the large piles of culm to be found in the eastern parts of Pennsylvania. . . .

"This new product, lubricating graphite, has received at the hands of the international Acheson Graphite Co., as a means of indentification, the number '1340,' and by this number it is known today on the markets. The company manufacturing it guarantees it to have a purity of at least 99 per cent., whereas they know and take great care that none shall go one the market that has not a purity of at least 99½ per cent., while the average analysis from the electric furnace runs as high as 99.8 per cent. The small impurity still remaining in this graphite consists of condensed metallic vapors, distributed in particles so fine that they cannot be detected except by powerful microscopes, and producing no injurious effect.

"For lubricating purposes the graphite is reduced to a state of disintegration so fine that 99 per cent. of it will go through the meshes of a sieve having 40,000 meshes per square inch. It can in some cases be used dry, but more generally when mixed with greases of varying consistencies it can be used in ball-bearing races, transmission cases, grease cups, and, in fact, any place where it has been the custom to use plain greases, the grease simply serving the purposes of a carrier. The graphite-grease product is known as 'gredag.'"

The "deflocculation" of the graphite, or its subdivision beyond that attainable by mechanical subdivision, Dr. Acheson explains, was discovered in the fall of 1906, and was made possible by reason of discoveries which he had made a number of years before in relation to clays, when he found that the addition of organic matter, such as straw water or tannin, to the clay enormously increased the plasticity and strength and yielded a subdivision so fine that it would pass through a filter paper and would not settle in water, remaining suspended indefinitely. The familiar Bible story of the Children of Israel using straw in making brick under the instructions of the Egyptians partly was responsible for putting him on the track of the experiments, and the molding clay which resulted from his discoveries is now known commercially as "Egyptianized" clay.

The effect in the case of graphite is not produced by grinding, but is produced by mixing a solution of tannin with the graphite, making it sufficiently fine to pass through the finest of filter paper. The graphite, although weighing two and one-quarter times as much as water, will remain suspended in the latter indefinitely, it being assumed that in thus setting at defiance the law of gravity as it is known when applied to masses, a condition is arrived at where not masses but molecules are being treated.

When the deflocculated graphite is mixed with oil, it is known as "oildag," and in suspension in water it is known as "aquadag," the "-dag" portion of the words being composed of the initial letters of the words "deflocculated Acheson graphite." Four years of experiments and tests in automobile lubrication, according to Dr. Acheson, has shown that the use of oildag makes possible a two-thirds reduction in the quantity of lubricating oil for the engine, giving, it is claimed, the additional advantages of prevention of pitting of the valves, prevention of smutting of the spark plugs, freedom from smoke in the exhaust, prevention of wear between the cylinder walls and the piston rings, decreased carbon deposit in the cylinder and practical elimination of the abrasive action of the carbon set free from the oil.

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## RECENT PATENTS.

959,569. Magnetic Clutch. Frederick Ripon Martin and Oswald Montague, Shepherd, London, England. Filed Feb. 13, 1907. Serial No. 357,226.

1. A magnetic clutch including a wire equipped core, with the wire coiled in separate and continuous sections or coils and a lead wire connected thereto about midway of the wire of said sections or coils, and means for rapidly demagnetizing one coil or section thereof for releasing clutch.

959,571. Hood for Motor Vehicles. Wilson P. Mays, Portland, Ore. Filed July 18, 1908. Serial No. 444,269.

1. The combination of a motor-housing having a roof consisting of two half-sections hinged on a longitudinal axis, each section provided with a series of longitudinally alined apertures, movable closure-plates arranged to control said apertures, a quadrant and lever, and connections of the universal joint principle between said lever and the connecting rods of the closure plates adapted to operate the latter as a unit.

959,579. Elastic Tire for Vehicles. Isaac Seaman McGiehan, Westminster, London, England. Filed Jan. 6, 1908. Serial No. 409,379.

A tire comprising a foundation portion formed of layers of fabric impregnated with rubber lying transversely of the tread portion, and a tread portion composed of annular layers of fabric impregnated with rubber standing perpendicular to the layers of the foundation portion, and side binders of fabric impregnated with rubber, said foundation portion, side binders, and tread portions and the layers of fabric and rubber therein being permanently united by vulcanization.

959,661. Road Vehicle Suspension. Frederick Walton, London, England. Filed Aug. 17, 1908. Serial No. 448,992.

1. The combination with the frame or body of a vehicle and its wheel axles, of a suspension device comprising an annular flexible cushion containing fluid under pressure, arranged edgewise in relation to the frame and axles and unsupported at its inner periphery so that its resiliency is primarily derived by resistance to deflection irrespective of compression and consequent reduction in capacity.

959,669. Tire Remover. Peter C. Wiest, York, Pa. Filed May 10, 1909. Serial No. 496,959.

1. A pneumatic tire remover embodying a handle having a reduced end portion, a sleeve of uniform diameter fitting loosely around the reduced portion of the handle, and a conical member or head mounted to turn freely on the reduced portion of the handle independently of the sleeve and beyond the outer extremity of the sleeve, said head being provided with a circumferential flange at its outer end where it is of the greatest diameter.

959,700. Headlight. Carl R. Blackman, Colorado Springs, Col. Filed Dec. 4, 1909. Serial No. 531,375.

1. A device of the class described including a case arranged to be mounted upon a vehicle; a lamp-carrying shaft journaled for rotation in the case; a pinion secured to the shaft within the case; a second pinion mounted in the case and in mesh with the other pinion; a rack bar slidably mounted in the case and in mesh with the second pinion; an arm arranged at its lower end for connection with the movable portion of a vehicle axle, and arranged to extend to the front of the axle and above the same; and a rigid connecting bar located in the plane of the rack bar and pivotally connected at one end to the upper end of the arm and pivotally connected at the other end to the rack bar.

959,705. Vehicle Wheel. Arthur Brisbane, New York, N. Y. Filed May 4, 1907. Serial No. 371,871.

1. In a vehicle wheel, the combination of a plurality of solid tread members forming the tread surface of the wheel, said members forming a practically continuous tread surface, a hub, an annular flange extending radially from the hub, a plurality of projections on the flange, a plurality of holding devices U-shaped in cross section, one for each tread member, each of said holding devices having a projection on its underside, a plurality of springs, one for each tread member, supported by the flange and located between the flange and the holding devices and engaging the projections on the flange and on the holding devices, slotted side plates secured to the flange, and means on the tread members for engaging said slots to limit the movement of said tread members.

959,707. Vehicle Wheel. Arthur Brisbane, New York, N. Y. Filed May 31, 1907. Serial No. 376,689.

1. In a vehicle wheel, the combination of a sectional spoke rim or felly, an air or gas

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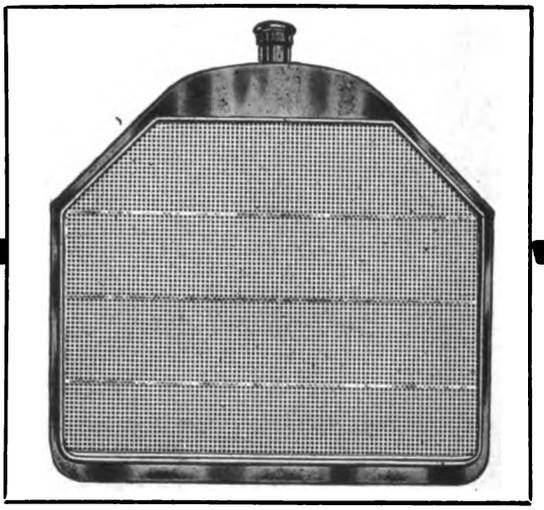
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tight tube of resilient metal supported by the felly and extending completely around the outer periphery thereof, means for moving the sections of the felly whereby its circumference is increased or decreased to hold the tube in position or permit its removal, a hub, slotted side plates secured to the hub at their inner edges, and a plurality of tread members having curved tread surfaces forming the tread surface of the wheel mounted in said side plates so as to contact with said resilient body and have a limited movement with respect to said tube.

959,732. Vehicle Wheel Rim. William E. Greer, Kenmore, Ohio, assignor of one-third to William F. Pfeiffer, Akron, Ohio, and one-third to Jacob Pfeiffer, Columbus, Ohio. Filed April 19, 1909. Serial No. 490,977.

In a vehicle wheel, a tire retaining means consisting of a split ring having one end thereof provided with a slot and a transversely-extending U-shaped keeper of less width than the length of the slot, said keeper extending over a portion of the slot, said ring having its other end formed with a laterally-extending shouldered lug adapted to engage one side of said keeper for connecting the split ends of the ring together, said keeper integral with the ring and said lug being rigid and integral with the ring, and said keeper extending transversely with respect to the ring and having its outer portion flush with the outer edge of the ring, said slot arranged approximately at the end of the ring in which the slot is formed and said lug positioned approximately centrally of that end of the ring with which it is formed integral.

959,878. Speed Changing Mechanism. Arthur Page, Providence, R. I. Filed March 2, 1910. Serial No. 546,796.

1. A speed changing mechanism comprising a main driving shaft, a jack shaft, a plurality of sets of gears on both shafts in constant engagement through which different speeds may be obtained, clutches for connecting said main shaft with the different speed gears, a power transmitting gear on the jack shaft meshing with the high speed gear, and means for withdrawing said transmitting gear from engagement with said high speed gear when the clutch is connected to the latter.

959,892. Vehicle Spring. Henry Wallace Smith, Canton, Ohio. Filed Nov. 11, 1908. Serial No. 462,078.

1. A vehicle spring consisting of upper and lower main spring, the upper spring having its end portion resting upon the end portions of the lower spring, the end portion of each spring being bent to form a scroll, said scrolls being oppositely formed, rigid inclined bars connecting the ends of adjacent scrolls, interior springs bearing on the main springs throughout their body portions, and means for securing said interior springs in their normal position with respect to the main springs.

960,308. Armor for Pneumatic Tires. Isidore Goldstein, Chicago, Ill. Filed June 24, 1907. Serial No. 380,385.

1. An armor for tires consisting of a plurality of layers each comprising a multitude of relatively small laterally and longitudinally abutting plates breaking joint with each other, said layers being offset relatively to each other and breaking joint with each other.

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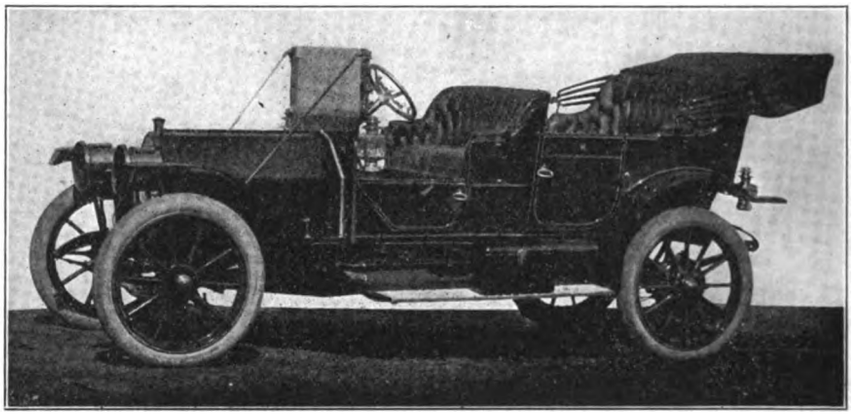
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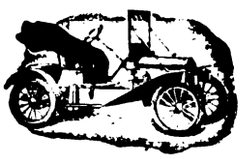
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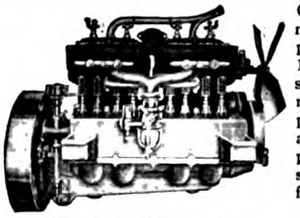
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EDW. V. HARTFORD, Pres.,
New York, 212-214 W. 88th St.; Boston, 319 Columbus Ave.; Chicago, 1458 Michigan Ave.; Philadelphia, 250 North Broad St.

## HESS-BRIGHT
**Ball Bearings**
Highest in price, but by far the lowest in final cost.
**Hess-Bright Manufacturing Co.**
2109 Fairmount Ave. Philadelphia, Pa.

## The Acme
"It Tells It Can"
THE ACME MOTOR CAR CO.
Reading, Pa.

## Continental
QUICK DETACHABLE
Tires Now Ready for Delivery
CONTINENTAL CAOUTCHOUC CO.
1788-90 Broadway New York City

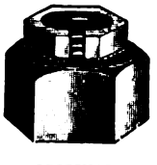
## LASCO FOLDING GLASS FRONT
Simple, effective, correctly designed mahogany finish wood frame—trimmed in brass—3-16 crystal plates—steel stay rods—bottom of frame shaped to dash of any standard automobile—can be attached easily and quickly. We make the London Tops. Write for details and prices.

LONDON AUTO SUPPLY CO.,
2542 Wabash Ave., CHICAGO, ILL.

6-60 6-40
PALMER & SINGER
1911 Models
READY IN AUGUST
4-50 1620 Broadway, New York City 4-30

## CHICAGO AUTO TOP CO. (Inc.)
1507-09 Michigan Ave. CHICAGO
High Grade Auto Tops
QUICK DELIVERIES
FACTORY CONTRACTS A SPECIALTY
Place Your Orders Now for 1911

Do You Know All You Ought to Know About
## COLUMBIA LOCK NUTS?



ORIGINAL

They are a distinct contribution to safe automobile construction.

Used with entire success by many of the leading makers and most of the principal railroads.

*We have an interesting booklet which is yours for the asking.*



IMPROVED

COLUMBIA NUT AND BOLT CO., Inc., Bridgeport, Conn.

## WANTS AND FOR SALE
15 cents per line of seven words, cash with order. In capitals, 25 cents per line.

FOR SALE—Pullman Special, 40 horse power, 121-inch wheel base, six passenger demi-tonneau, run about 1,000 miles, bought to order late in the season of 190 and has been stored all winter; special cloth lined top, two extra tires, tire cover, double brass tire irons, full lamp and tool equipment Bosch magneto, upholstered in full French hand buffed leather. Looks like new. Will sell at sacrifice. J. A. KLINE, General Manager, B. C. K. Motor Car Co., York, Pa.

FOR SALE—One 60 H.P. 7-passenger Thomas touring car, 1908 model, fully equipped. Has just been overhauled and repainted. THE NEW DEPARTURE MFG. CO., Bristol, Conn.

FOR SALE—One White steamer, 4-passenger runabout, 1908 model. Good as new. THE NEW DEPARTURE MFG. CO., Bristol, Conn.

## Studebaker-Dayton AUTOMOBILES
Watch our full page announcements in future issues of this paper.

## Stearns
The Ultimate Car
THE F. B. STEARNS CO., Cleveland, O.
*Licensed under Selden Patent*
The White Line Radiator Belongs to the Stearns.

## The Heinze Magneto
Is superior in efficiency to any other on the mark
WE HAVE THE PROOF
GET OUR CATALOG. WRITE TO
HEINZE, OF LOWELL, MASS.

It is not possible for any chain to be better than
## BALDWIN CHAINS
BALDWIN CHAIN & MFG. CO.,
Worcester, Mass.

Running Board
Steel Step
## HANGERS
THE CROSBY COMPANY, Buffalo, N.Y.

## KOEHLER "40"



$165
TORPEDO
H. J. KOEHLER CO., 1780 Broadway, New York


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The Dependable Quality of the

# F & S

## ANNULAR BALL BEARINGS

is emphasized by the following recent performances.

## Prince Henry Tour

First five winning cars in tour
Ninety-five (95) out of a total of 127 entrants
and the first ten cars in speed trials used

# F & S

## Annular Ball Bearings

(MADE IN GERMANY)

A Brilliant Repetition of Prince Henry Tour Victories in 1908 and 1909

## J.S. BRETZ COMPANY

Sole Importers
TIMES BUILDING. NEW YORK

*The Prince Henry Tour had 127 Entrants, of which 121 started and 87 finished. Of these cars 100 were German, 17 Austrian, 4 Italian, 3 English and 2 of French make.*

*95 of these cars, or 75 per cent., used F & S Annular Ball Bearings, thus only leaving the remaining 32 entrants to be divided among the other 24 ball bearing makers of the world.*

*This result in Germany, where ball bearing competition is keenest and technical ability is highest, again demonstrates the supremacy of F & S Annular Ball Bearings.*

*HERE IS THE F & S PRINCE HENRY TOUR HONOR ROLL:—*

| | CARS |
|---|---|
| Austrian Daimler (1-2-3) | 10 |
| Opel (4th) | 20 |
| Benz (5th) | 13 |
| Gaggenau | 7 |
| Stoewer | 4 |
| Adler | 5 |
| Mathis | 4 |
| Bergmann—M. | 8 |
| Puch | 2 |
| Protos | 3 |
| Fiat | 4 |
| Mercedes | 9 |
| Brennabor | 6 |
| Total | 95 |


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# MICHELIN



# TIRES



# "As Usual" Won

**All Important Contests at the Indianapolis Speedway, including the**

## Cobe Trophy, Two Hnndred Miles
## Remy Trophy, One Hundred Miles
## Oue Thousaud Dollar Trophy, Fifty Miles

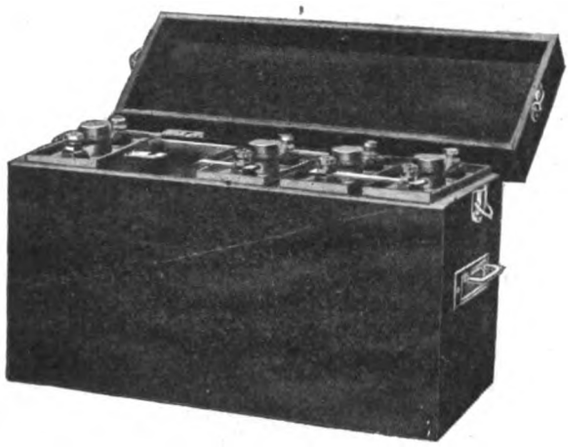
### Of the Ten Contests Friday, Michelins Won Nine
### Of the Ten Contests Saturday, Michelins Won Eight
### Of the Six Contests of the 4th, Michelins Won Five

This convincing evidence of the superior durability of Michelins under hardest usage must appeal to every motorist. Michelin Tires have won ninety-five per cent. of all the world's important speed and endurance contests for the past fifteen years.

## MICHELIN TIRE COMPANY

**MILLTOWN** **NEW JERSEY**


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# The New Edison Storage Battery

## for Ignition

THE new Edison Storage Battery, now made in suitable sizes for ignition purposes—five cells and seven cells, assembled in hardwood or iron case—is the perfect basis of the perfect ignition system. The hot blue spark which it delivers is comparable only to that of the high tension Magneto—with these advantages over the Magneto system: First, with the Edison Storage Battery you can start on the spark. Second, while it takes a mechanical engineer who is an expert on gears to install the Magneto system, anyone can install the Edison Storage Battery.

The chief advantage of the Edison over other storage batteries lies in its greatly increased efficiency and its low cost of maintenance—combine this with the further advantages that its weight is only about half that of the former lead battery, that it cannot be injured by overcharging, and that it is not injured standing any length of time, either charged or discharged.

**And it is guaranteed for five years.**

Your car should be equipped with the Edison Storage Battery—or you should specify it on the car you are about to buy.

### Edison Storage Battery as Motive Power for Electric Vehicles

If you are considering purchasing an electric vehicle, whether the lightest pleasure vehicle or the heaviest commercial truck, insist upon its being equipped with Edison Storage Batteries.

Electric vehicles of every type equipped with Edison Storage Batteries are operating successfully everywhere today. Among the foremost users of vehicles so equipped are such firms as the Adams Express Company, the U. S. Express Company, R. H. Macy & Co. and Tiffany & Co. We have convincing records of the performances of these cars as compared with cars otherwise equipped, which we will be glad to send you if you are considering purchasing an electric vehicle of any type or are interested in better equipment for the vehicles you now have.

Write us for complete information today.

**The Edison Storage Battery Company**
**116 Lakeside Ave., Orange, N. J.**

# THE SIMPLICITY

of the

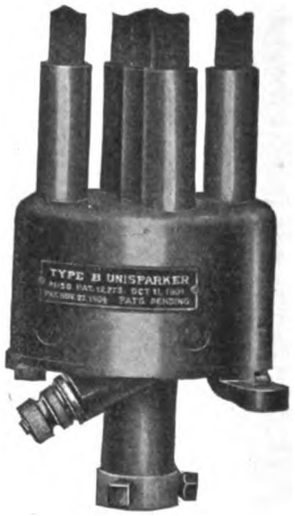
## Atwater Kent

# UNISPARKER

is not limited to its mechanical construction. It extends to its installation, adjustment and care.

The UNISPARKER is a short cut to ignition reliability—a scientific system of using dry batteries for current, so simplified and refined that it costs no more than ordinary coils and timer, yet it runs with the unfailing, unostentatious regularity of a good watch.

Its principle is to produce one instantaneous contact per explosion. The duration of contact is not affected by the speed, and is adjustable to suit the freshness of the battery.




The UNISPARKER takes the place of the ordinary timer and distributer, and is attached in the same way. There is nothing to adjust save the contact screw, and that is not delicate; it is set with the engine running, and given one-quarter turn every 500 to 1000miles. Nothing but the contacts can wear out; they last 10,000 miles and cost $1.25 to renew. A drop of oil every 500 miles, and battery renewal every 2000 miles, completes the list of attentions required.

For the rest—*nothing*—absolutely nothing. The UNISPARKER *cannot* wear out or forget to operate. When the battery is nearly spent, it warns of the fact by slight misfiring. A half turn of the contact screw makes it good for a hundred miles further. You *cannot* be stranded by unforeseen loss of current.

No other ignition system gives nearly the results of the UNISPARKER at the UNISPARKER'S price.

**Atwater Kent Manufacturing Works**
**33 No. Sixth Street PHILADELPHIA, PA.**

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## "Made by Trunkmakers who are Motorists"



The
**KAMLEE**
**is the only real auto trunk**

It is built to meet all the requirements of the touring motorist—and it is the only one that does. Every practical idea of serviceability, convenience and appearance is featured in the Kamlee Trunk. It

**Conforms to the Shape of Any Car**

no matter what the make or type may be—special designs being made to fit cars with cut in backs. It has a patent drop front which enables you to remove articles from the bottom without disturbing the contents at the top.

**Send for Leaflet**

giving complete information of its perfect construction—and prices.

*The Kamlee Trunk is fully protected by Patents, and all infringements will be prosecuted.*

**THE KAMLEE CO.**
**345 Milwaukee Street**
**Milwaukee, Wis.**

**Rain Proof**

**Dust Proof**



**Could you Stop Short in a case like This?**

You can lock the wheels of your car almost instantly if the brakes are lined with J-M Non-Burn Brake Lining. Impartial tests prove this.

This lining grips the drum with a vise-like grip, because it is made of asbestos, which means a mineral lining against a metal drum. This gives the greatest braking efficiency known to engineering science. Yet, with less pressure on the brake lever, you can stop just as slowly as you wish.

## J-M Non-Burn Brake Lining

is also practically indestructible. Frictional heat cannot char or burn it; oil, gasoline or water cannot injure it.

Be sure to get J-M Non-Burn and your car will always obey the slightest pressure on the brakes. The name is plainly stamped on every few feet of this lining. Don't take chances with cheap substitutes.

If your dealer won't supply you, write us for name of one who will.

Ask our nearest branch for Sample and Booklet, "Practical Pointers on the Care of Automobile Brakes."

**H. W. JOHNS-MANVILLE CO.**

| | | | | |
|---|---|---|---|---|
| Baltimore | Cleveland | London | New Orleans | San Francisco |
| Boston | Dallas | Los Angeles | New York | Seattle |
| Buffalo | Detroit | Milwaukee | Philadelphia | St. Louis |
| Chicago | Kansas City | Minneapolis | Pittsburg | (1236) |

## Progressive Dealers' Opportunity

Widespread interest in the "two years ahead" OWEN features has been aroused among experienced motorists by the vigorous and extensive advertising campaign we have been carrying on in the highest grade publications such as the Saturday Evening Post, Collier's, Life, Literary Digest, Hampton's, McClure's, Country Life in America, etc., as well as the leading trade papers. This advertising has made the OWEN known everywhere and we have received an unprecedented number of requests for demonstrations and applications for dealership.

There remains some excellent territory. We want to hear at once from progressive dealers who desire to profit by our country wide advertising and demonstrations.

We do not ask that you or your customers take our word for the superior merits of the OWEN. We are willing to demonstrate the "two years-ahead-of-the-times" OWEN features to you. Write today.

**OWEN MOTOR CAR COMPANY, 1620 E. Grand Boulevard, Detroit, Mich.**

## COLE 30-$1500.

The Car You'll Be Proud to Own

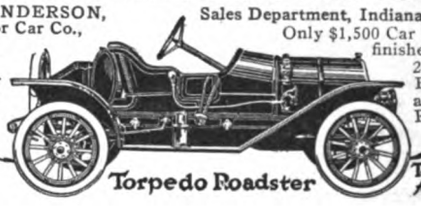
A powerful, speedy car; low in price, economical in up-keep. Contains the best of all the rest—the perfections and luxurious appointments of the highest priced cars. Compare it with rival cars.

IT'S THE CLASSIEST CAR OF THEM ALL.

C. P. HENDERSON, Cole Motor Car Co., Sales Department, Indianapolis, Ind.

Only $1,500 Car that ever finished 24-hour Endurance Run

Also made in 4 and 5 Passenger Touring Cars.



Write for Catalog

Torpedo Roadster

Some Territory open for Agencies

## STEERING GEARS
## CONTROL LEVERS
## RADIATORS

PROMPT DELIVERY

**CENTAUR MOTOR COMPANY**
**510 Majestic Building** **DETROIT**

## GABRIEL



## Another Gabriel Triumph

A new 1911 model Gabriel Horn now ready. Four tones in a single tube. Exquisite melody and a positive warning.

We also make three toned single tube horns.

If we had your address we'd write you; as you have ours, won't you write us and get the latest?

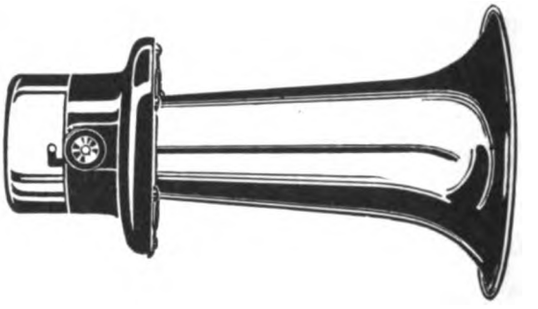
**GABRIEL HORN MFG. CO, 1417 E. 40th Street, CLEVELAND**


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THE

# MONOPLEX

## Electric Horn



Your car equipped with a MonopleX is a safer and easier car to run.

The mental strain on the man at the wheel is lessened by his knowledge that he controls—without moving either hand or foot—a signal whose warning note is **instantly responsive** to the slightest movement of one finger.

The **"instantly responsive"** feature of the MonopleX is but one of the many valuable points which have been designed into it. You'll realize how valuable it is when you have used it awhile.

Made in two types, for automobiles and motor boats, either type selling at fifteen dollars complete.

**Atwater Kent Manufacturing Works**

**33 No. Sixth Street** **Philadelphia, Pa.**

It's Made for Your Tire Pump

THE FAMOUS **GRAB** PUMP CONNECTION

The only pump connection that actually saves the wear and tear on the valve. It clamps on. Does not wear out the threads and cannot loosen from valve until clamp is released. Absolutely air tight

Fits Any Valve
Clamps On
No Exertion
Saves Time




No Screwing
No Unscrewing
Cannot Loosen
Will Not Leak

Supplied in nickel finish. Will fit any pump and any valve.

Price each, 25c.

Ask Any Dealer or

**THE MOTOR CAR EQUIPMENT CO.**

55W Warren St. New York

**When in Detroit stop at**

# Hotel Tuller



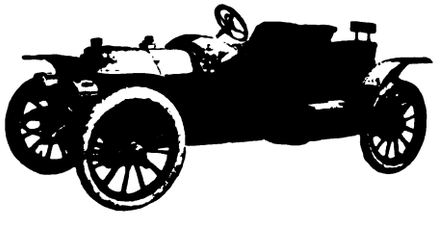
**Automobile Headquarters.**
**Absolutely Fireproof.**
**Every Room Has Bath.**
**Rates $1.50 up.**
**In the Center of the Business District Facing Beautiful Grand Circus Park.**
**Finest Grill Room in the City.**
**Our Grand Roof Garden Cafe Opens June 1st.**
**Vocal and Instrumental Music.**

**L. W. TULLER, Prop.**

# MERCER

TOURING CAR
TOY TONNEAU
SPEEDSTER

**Each $1950**



**Style, Luxury, Quality, Strength, Speed.**

**Made Right and Stays Right**

*Let us hear from you*

**MERCER AUTOMOBILE CO., Box 126, Trenton, N. J.**

IF YOU ARE INTERESTED IN

# MOTORCYCLES

THE BICYCLING WORLD
AND MOTORCYCLE REVIEW
WILL INTEREST YOU

PUBLISHED EVERY SATURDAY AT
154 NASSAU STREET, NEW YORK

*$2.00 Per Year* *Specimen Copies Gratis*

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# WEED COMPANY OBTAINS INJUNCTIONS

**Against Zigzag, Victor, Superior, Pitts and Reliable Grips and Against Sale of Parts for Grips.**

WE desire to notify the trade that our test suit against the EXCELSIOR SUPPLY COMPANY for infringement of the Parsons patent on chain grips has been decided in our favor in a decision rendered by Judge Sanborn in the Circuit Court of the United States at Chicago, on May 20, 1910.

**The court holds "that the Parsons Patent is basic to a large extent, fully valid, and infringed" and also that the Parsons invention is "a new conception and new embodiment of that conception, producing an improved result, useful in itself, and commercially successful. It is entitled to liberal treatment, both as to anticipation and infringement." The decree holds the Zigzag and Victor Grips as infringements and orders defendants to account for profits made by them and damages caused to us.**

Preliminary Injunctions have been granted in Chicago, Milwaukee and New York against Garage Equipment Mfg. Co., Pitts Anti-Skid Chain Co., Leo Rabin, Reliable Non-Skid Co., Auto Chain Repair Co., E. J. Edmond Co., William Wooster and Automobile Surplus Stock Syndicate, and others.

## We Shall Take Energetic Action

in our pending suits against manufacturers and sellers of the

**WHITTAKER** **MORGAN**
**CLEVELAND** **FOX**

and other unlicensed chain grips.

Meanwhile, we request the trade and public to respect our rights and decline to sell or use infringing grips. Parts not made by us infringe our patent rights and are unreliable because of inferior material used in their construction.



Weed Chains are the ONLY practical anti-skidding device. They are "as necessary as gasolene." We use the highest grade material and most improved machinery. That's why Weeds are preferred by all discriminating motorists.

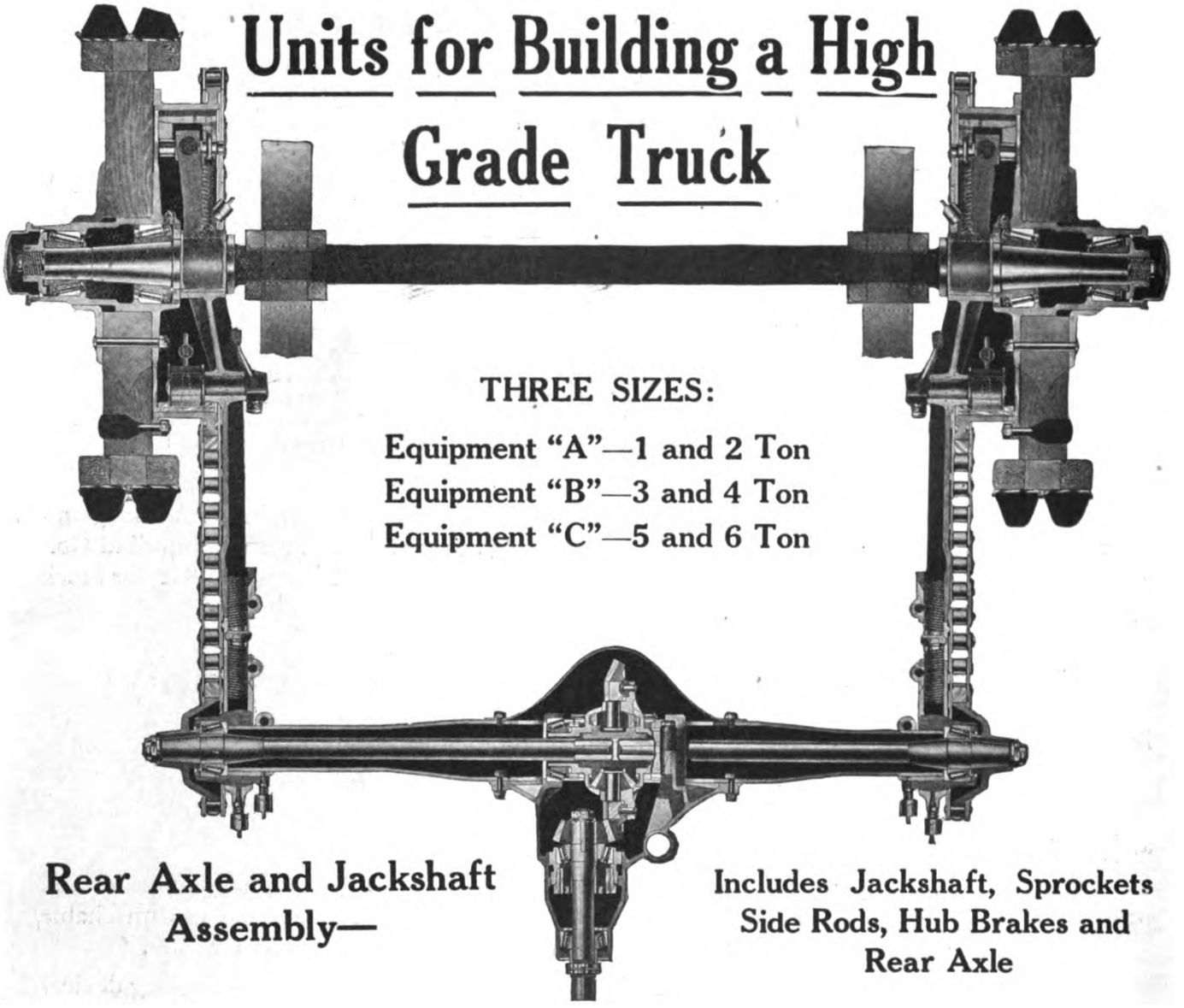
**DO NOT ACCEPT INFRINGING SUBSTITUTES. THE GENUINE HAVE BRASS PLATED CROSS CHAINS and the word "WEED" is stamped in the hooks—your guarantee that they are genuine.**

## WEED CHAIN TIRE GRIP CO.

**28 Moore Street** **New York City**


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# What You Expected Tomorrow is Here Today—the Last Link in a Chain of Units for Building a High Grade Truck



THREE SIZES:

Equipment "A"—1 and 2 Ton
Equipment "B"—3 and 4 Ton
Equipment "C"—5 and 6 Ton

**Rear Axle and Jackshaft Assembly—**

**Includes Jackshaft, Sprockets Side Rods, Hub Brakes and Rear Axle**

If the motor car industry needed evidence to show it how deeply we enter into the problems of the industry they need only look at this new Axle.

It lifts a load of worry from the shoulders of every Truck Manufacturer who adopts it. Every Truck Builder will appreciate at once what a vast amount of detail work it sweeps away. The fact that it is built entirely in the Timken-Detroit shops means Timken-Detroit Quality—Reliability, absolute Dependability.

We make nothing but AXLES. We eat, sleep and think AXLES. For more than three years we've had this complete Rear Axle and Jackshaft Assembly in our bonnet—worked steadily at it until now we offer you a thoroughly COMMERCIAL proposition.

Please note that word COMMERCIAL. Absorb its full meaning—"a practical, tried-out article, fit for everyday use." Something for which we've no apologies to offer. You can adopt it at once for your cars without question. It's a COMMERCIAL axle built for COMMERCIAL service.

---

The features of this new Axle and Jackshaft Assembly are, Simplicity, Strength, Completeness, Economy of Power. Study the details; you will see many strikingly up-to-the-minute points of superiority.

The Jackshaft is one of our standard bevel drive rear axles with fittings on ends for adjustment to the Truck frame.

The forward sprockets are dished. This brings the Timken bearings on the ends of the Jackshaft on a direct line with the pull of the chain—reduces the load on the bearings and keeps the chains in alignment.

Side rods are journaled on the rear axle. They carry the brakes and are attached to the ends of the jackshaft by large spherical bearings. This eliminates all twisting strains from the side rods.

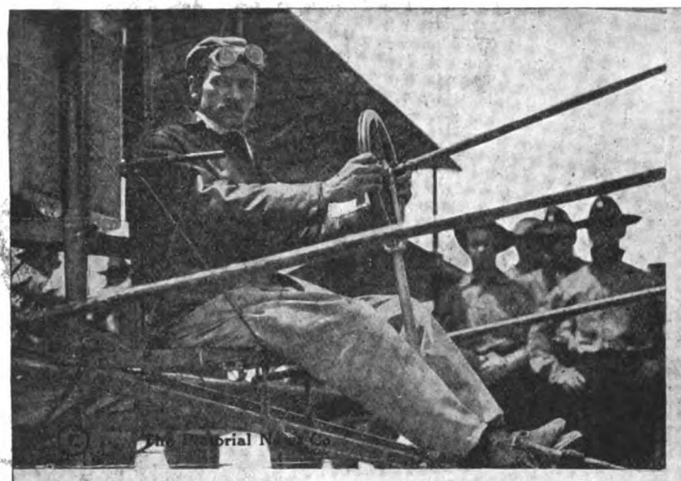
Brake drums and sprockets are in one piece—attached directly to wheel spokes. Brakes are internal, cam-operated type—very large in diameter—extra wide face.

Rear axle inside of side rods is rectangular in section—gives the maximum amount of strength for minimum weight of axle.

Want to know more? Get in direct touch with our engineering department.

## The Timken-Detroit Axle Company, Detroit, Mich.

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# Curtiss
INDORSES
# Mobiloil
A GRADE FOR EVERY TYPE OF MOTOR

## Are You Using the Right Oil on Your Car?

The most important thing left entirely to the judgment of the owner in the operation of his automobile or aeroplane is the selection of a lubricant.

The discriminating user of oils selects the grade of Mobiloil specially suited to his type of motor.

Hotel Astor
New York

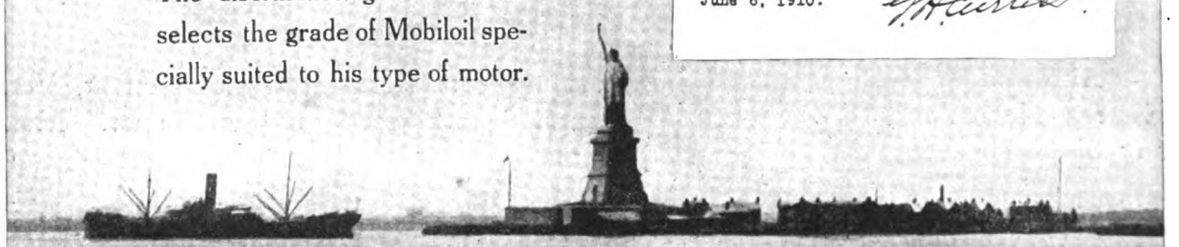
Vacuum Oil Company,
29 Broadway,
New York City.

Dear Sirs:

I am pleased to report the success we have met with in the use of "Mobiloil" in lubricating the engines in our aeroplanes, and to say that it maintained its reputation in my Albany-New York flight.

Very truly yours,

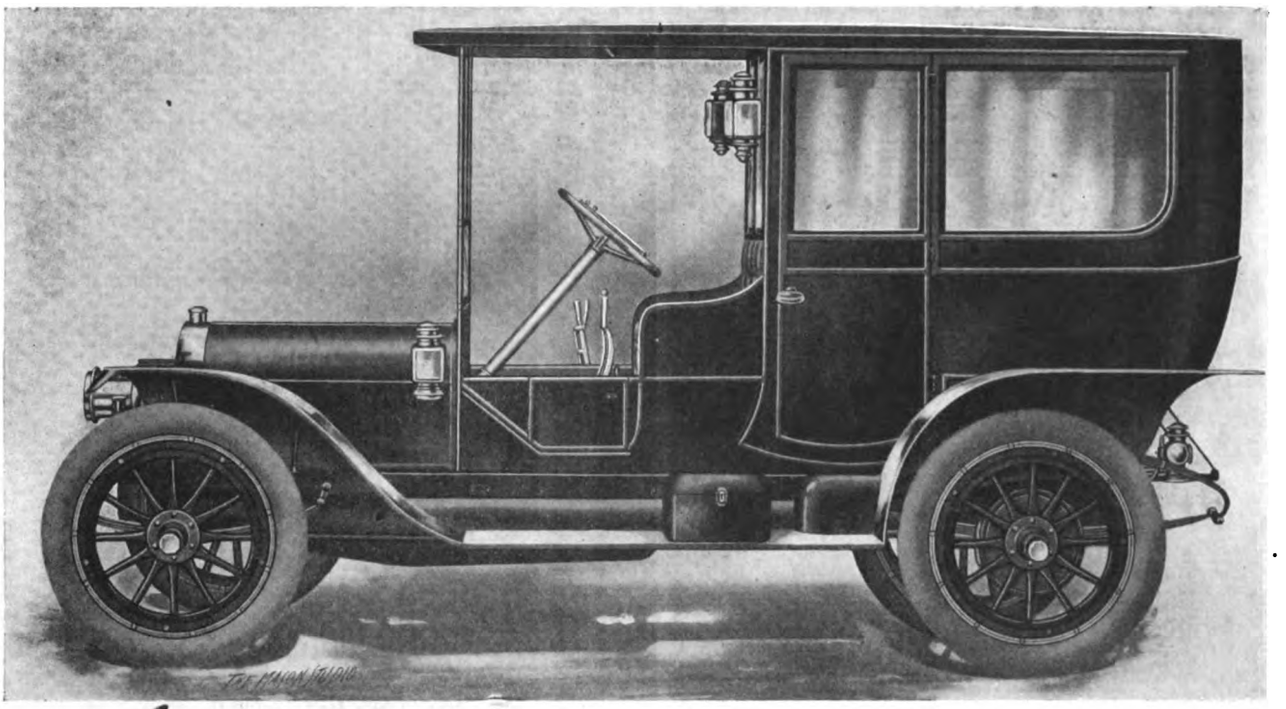
June 6, 1910. G. H. Curtiss



VACUUM OIL COMPANY
Rochester, U. S. A.

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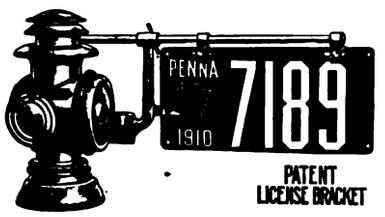
Knox

# 1911 Model R, 4-40 Limousine

PRICE EQUIPPED, $4,250.00

122" wheel base, 7 passengers facing forward. Write for advance information.

KNOX AUTOMOBILE COMPANY, Licensed under Selden patent. Springfield, Mass.




# Comply With The Law

Your license number must remain stationary and the light from your tail light must shine on or illuminate this number at night. Will fit on tail lamp bracket now on your car without the use of a single tool. As the demand will be great and our supply small, order at once.

**Price $2.50 each** Orders filled in turn in which they are received

Automobile Road Map, To and Through the Berkshires, Connecticut, Vermont, Eastern New York and Western Massachusetts. Printed on bond paper. Mailed to any one on receipt of three cents in stamps.

**The Largest Automobile Supply House in America**

**CHAS. E. MILLER** Manufacturer, Jobber, Exporter and Importer. Home Office, 97-103 Reade Street **New York City**

BRANCHES

| | | | | |
|---|---|---|---|---|
| Philadelphia | Boston | Cleveland | Detroit | Buffalo |
| Hartford | Brooklyn | Atlanta | New York | New Orleans |


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# Are You Having Brake Troubles?

Be sure about your brakes. They are really the most important part of your car. Your safety depends upon their reliability. If your brakes are giving trouble, if they do not work properly — get rid of them and install the

## "DUPLEX" BRAKE

It has the most improved design. It is a 1912 model—a few years ahead. Equip your car with the "Duplex." Get a brake that is really efficient. Get a brake that acts instantly whether car goes forward or backward. Write for our little booklet on brakes; let us send you some interesting brake facts. We'll tell you what it will cost to put a new set of "Duplex" brakes on YOUR car. We'll also be glad to assist you if you are having brake troubles.

*We also make the famous "Raymond" Brake and "Raybestos" Brake Lining.*



**THE ROYAL EQUIPMENT COMPANY**
**436 Housatonic Ave. Bridgeport, Conn.**



# Pullman

## Pointers for Prospective Purchasers

In the purchase of a high-class automobile, the average business man looks more to the qualities which make for permanent satisfaction with a car than to freakishness of design and "loudness" of finish, which in many of the "sensational" machines that feature price is the only recommendation.

A car that is dependable under every condition of service, that is well balanced in its mechanical design, that has artistic body design and general appearance without going to extremes, and that is built of materials such as only makers of $4,000.00-$5,000.00 cars employ; and has fineness of measurements in its making equal to that of any motor car. This briefly describes the Pullman.

**PULLMAN PERFORMANCES PROVE ITS PERFECTION**

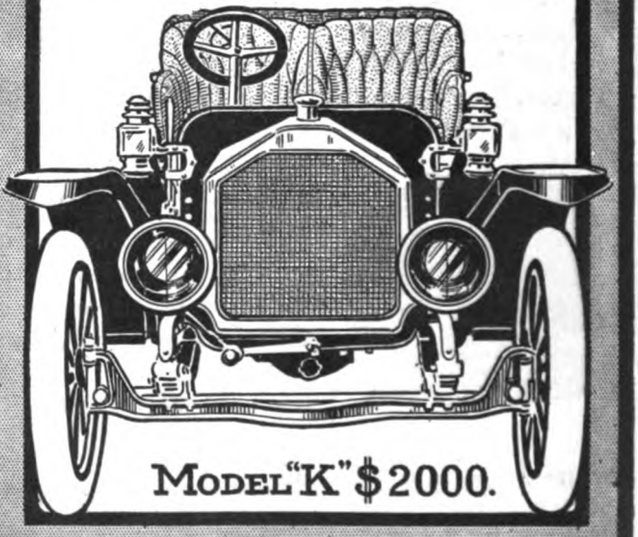
**As a Reliability Car the Pullman Acknowledges no Superior**

In the Atlanta-New York Good Roads Tour, June 6-14 (1100 miles) a model K, 35 H.P. $2,000 Pullman in competition with cars varying in price from $2,001-$3,000 made the only perfect score in Class 5.

**Pullman Motor Car Co.** York Pa.

Licensed under Selden patent.

Dealers: Write for 1911 Proposition.



MODEL "K" $2000.


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# ALUMALOYD SHEETS

A SPECIAL ANALYSIS SHEET COATED WITH ALUMINUM-ALLOYED METAL



**They're worth looking up, Mr. Auto Builder, Because—**

You cut out time-consuming, output-retarding,, expensive, preliminary work and get down to business in the finishing department, right at the start.

No sandpapering, rust-scouring, pumice-stoning, putty coating or applying of roughstuff. All ALUMALOYD requires for a high and durable finish is a primer, a one-color coat, a rubbing and a finishing varnish.

Honestly, can you beat that? And aren't you beating yourself out of time, capacity and money by loitering along in the old slow way?

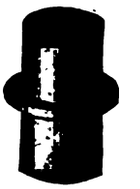
Ask for the details NOW.

**THE STARK ROLLING MILL CO.**
**Alumaloyd Sheet Department**
**Canton, Ohio**

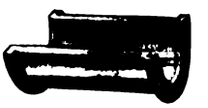
# Franklin Die-cast Bearings



We are the exclusive makers of Franklin die-cast bearings. They are durable, economical, accurate and uniform, and we can turn them out for you at lower cost than you now pay for machine-finished bearings.



Won't it pay you to investigate our process? One trial will demonstrate the value of these die-cast parts.



Write for our new booklet D, which tells all about the Franklin process of die casting. It will be worth your while.



FRANKLIN MANUFACTURING COMPANY
202 SOUTH GEDDES STREET SYRACUSE N Y

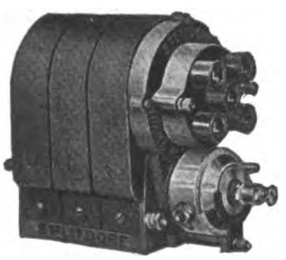
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## A Double Winner

**In the New Jersey Enduranoe Run.**

Seldom has there been a similar contest of equal hardships and difficulties.

With hills almost unnegotiable—through a cloudburst, tornado and pelting hail storm, the SPLITDORF equipped Jackson and Maxwell cars came in with flying colors and won a Perfect Score in their class.



Does not such proven Efficiency and Reliability convince you that your car should be equipped with a SPLITDORF without delay?

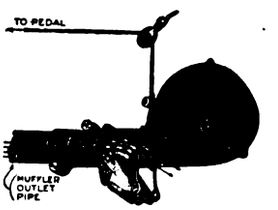
*Ask for Magneto catalog.*

**O. F. SPLITDORF**
**Walton Ave. and 138th St.**
**Branch, 1679 Broadway** **New York**

**Motorists—Let No Good Thing Get By You**

The most successful signal today is

# THE JERICHO HORN




**It is the Perfect Motor Car Signal**

**In the midst of loaded trucks and trolley cars—**
**Under the elevated railroads—**
**On the winding country highways—**

It saves life and limb, by giving a fair warning, adequate to the emergency.
It does not confuse or affright.
It does not produce an excess of noise.
It is not disagreeable to hear.
It is not a nuisance.
It is an every-day necessity for the safety of the general public and yourselves.
It insures to you the full enjoyment of your car.
It does all this at trifling cost—$7 to $10.

*Say JERICHO today to your dealer—*
*or write us direct for Folder 72.*

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**Makers of the famous "B-LINE" Oil and Grease Guns**


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More Power

Less Gasoline

Steady Pull




More Speed

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Less Vibration

**MAKES A FOUR CYLINDER RUN LIKE A SIX CYLINDER ON THE GASOLINE CONSUMED BY A TWO CYLINDER**

**THE GREATEST SCIENTIFIC ADVANCE THE GASOLINE MOTOR WORLD HAS EVER KNOWN**
**WRITE FOR DESCRIPTIVE MATTER NOW**

**GASOLINE MOTOR EFFICIENCY CO., Montgomery Street, Jersey City, N. J.**

# The New Glide Models Are Simply Perfection

Any dealer in unallotted territory who is open to handle the new models of the Glide Special Touring Car, Glide Special Roadster and Glide Scout, will miss a ripe opportunity if he fails to take the matter up with us immediately. An unequalled combination with the super-excellence of our factory management.

**1911 GLIDE CARS READY**

**Special Scout with 40 x 4 wheels, $2500**
**Special 45 Roadster with 36 x 4 wheels, $2400**
**Special 45 Touring Car with 36 x 4½ wheels, $2500**

You will see no better cars and no handsomer cars than these new Glides.

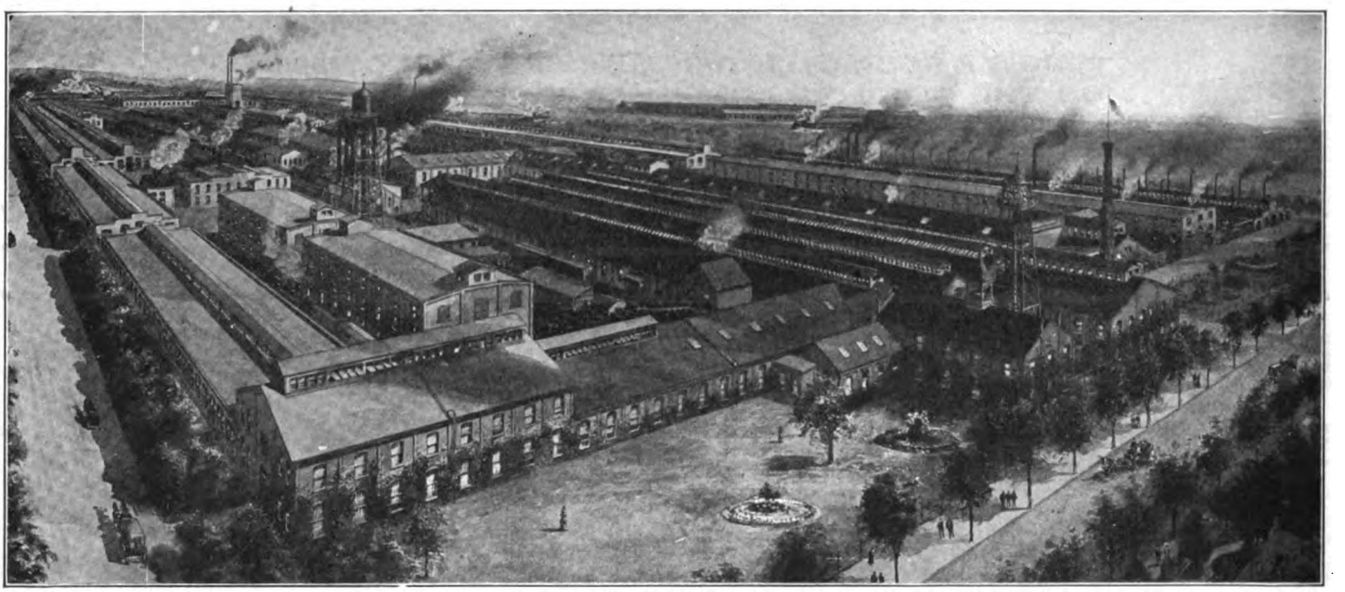
## The Bartholomew Company

**625 Glide Street** Licensed under Selden patent. **Peoria, Illinois**


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# Empire Tires
## WEAR LONGEST
EMPIRE TIRE CO., Trenton, N.J.

# Atlas Engine Works Plant
**ANNUAL CAPACITY— 20000 AUTO MOTORS**



THE HYDRAULIC PRESSED STEEL CO., Pressed Steel Frames. DETROIT CARRIAGE CO., Automobile Bodies. HERCULES ELECTRIC CO., Magnetos.
THE RUSSEL MOTOR AXLE CO., Automobile Axles. GEARLESS STEERING DEVICE CO., Steering Columns.

**ROGER B. McMULLEN, General Sales Agent, 115 Adams Street, Chicago, Ill.**

# WHAT IS 3 IN ONE MAGNETO OIL?



3 in One is a clear oil compound absolutely pure with just enough body to oil perfectly the most delicate bearing or sensitive action point.

3 in One is not too heavy—will positively not gum or clog, collect dust or dirt, harden or dry out.

3 in One is not too light to properly lubricate and keep lubricated any bearing (ball bearing or ordinary bearing). It will not run out and leave contact points dry.

3 in One contains no carbon, no residue, no foreign matter, no acid, no impurities, like all cylinder (mineral) oils. Sold at all garages, auto supply dealers, hardware and general stores—10c., 25c., 50c., bottles.

Don't scoff. Try 3 in One. Write at once for generous sample bottle and Magneto Bulletin. Both free. 3 in One Oil Company, 64 Broadway, New York City.


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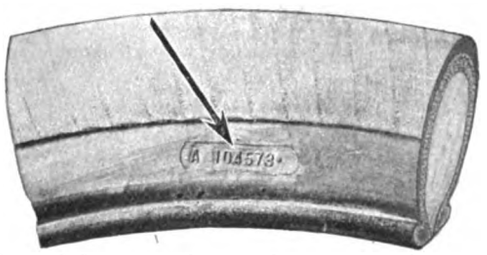
## ANNOUNCEMENT

**To All Users of**

# FISK *Quality* TIRES

Every casing and tube manufactured by the Fisk Rubber Company bears a

**SERIAL NUMBER**



When purchasing, users should see that this number is in evidence and intact.

*Any casing or tube on which this Serial Number has been mutilated or removed is not covered by Our Guarantee.*

## THE FISK RUBBER COMPANY

**Department 23** **CHICOPEE FALLS, MASS.**

**Branches in Seventeen Cities**

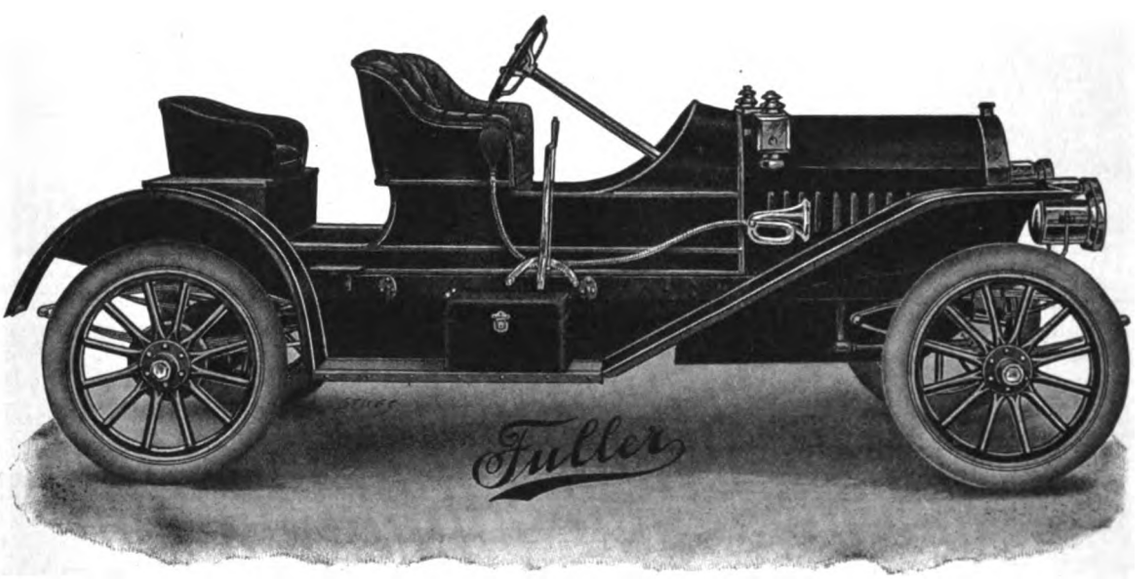
# $1,065 is the Selling Price

of this gentlemen's driving car, the

## Fuller "30" Roadster

with long stroke bloc motor, full elliptic springs and other advanced features.

¶ The FULLER line includes two and four cylinder models, pleasure and commercial, solid and pneumatic, from $825 to $1,165.

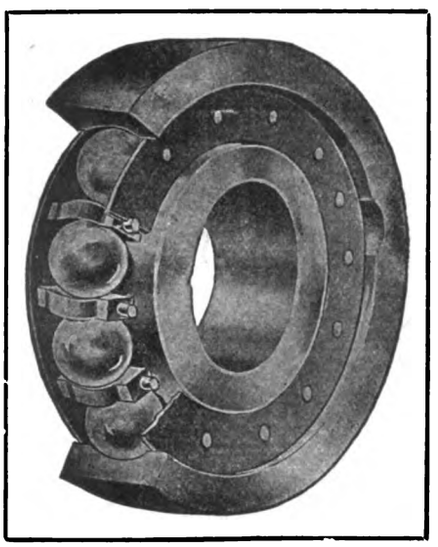



## FULLER BUGGY COMPANY, Jackson, Mich.

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**The Pioneers to Employ 92% of Balls in the Raceway**



# SCHAFER
# Ball Bearings
## Fear No Comparison

**AXIAL PRESSURE!** Thrust capacity of SCHAFER BEARINGS being equal to one-third the advocated load, the thrust capacity of all other makes of bearings being equal to only one-quarter of their advocated load—and since our advocated loads are far greater than those of any other known ball bearing—SCHAFER BEARINGS enjoy a 60 per cent. greater thrust capacity than all other makes. May we prove this to you?

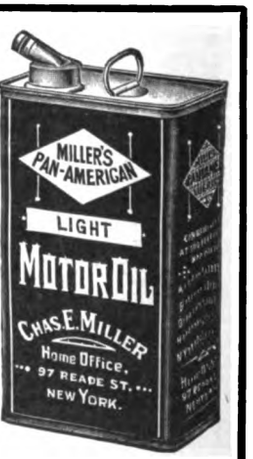
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**BARTHEL, DALY & MILLER, 42 Broadway, New York City**




MILLERS PAN-AMERICAN LUBRICANTS




# MILLER'S
# Pan-American Motor Cylinder Oils

are refined from **the finest grade Pennsylvania Crude** and are pure, distilled, highly-filtered mineral oils. **Have a high fire test, low cold test** and not affected by climatic changes. **They are made in three grades** suitable for all types of water and air cooled **Motor Cars, Motor Boats and Motorcycles.** In order to convince you of the efficiency of these oils we are willing to make you a **special price** for an initial order, much lower than usually quoted on other high grade oils.

**WE HAVE HANDLED THIS OIL DURING THE PAST EIGHT YEARS AND DO NOT HESITATE TO RECOMMEND IT TO BE THE EQUAL OF ANY FIRST CLASS OIL ON THE MARKET.**

**Special Prices for Manufacturers, Jobbers and Dealers**

**ADDRESS OIL DEPARTMENT**

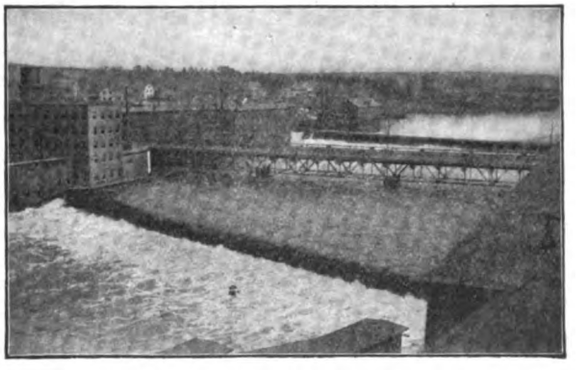
**CHAS. E. MILLER,** MANUFACTURER, JOBBER, EXPORTER AND IMPORTER
**Home Office, 97-99-101 Reade St., New York City**

**The Largest Auto Supply House in America.**

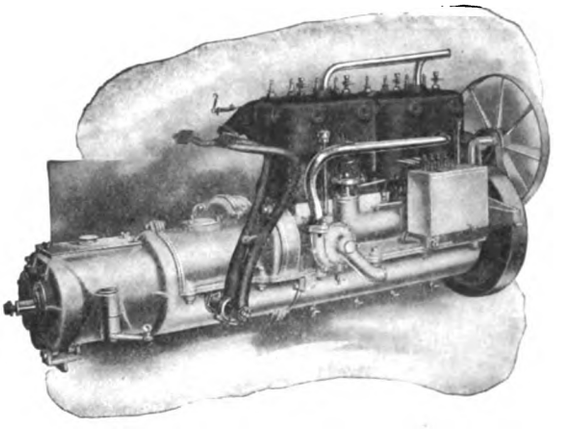
BRANCHES—Philadelphia, Boston, Cleveland, Detroit, Buffalo, Hartford, Atlanta, Brooklyn, New York City.


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# Stevens-Duryea



The Falls at Chicopee Falls—One of Our Factory Power Plants.

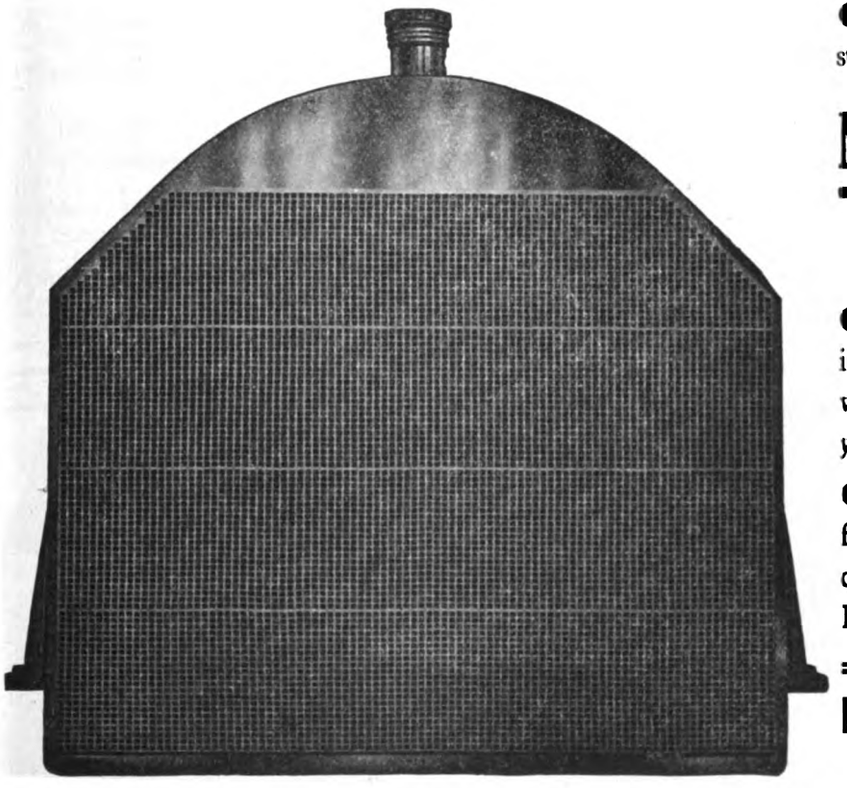


"Unit Power Plant" Supported on "Three Points" of the Model X.

Each has a tremendous reserve and is equally smooth in its delivery of power.

*Send for Our Literature—Post Free.*

STEVENS-DURYEA COMPANY
CHICOPEE FALLS-MASS.
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¶ Regardless of price or with the strictest regard to price,

# MAYO RADIATORS
## are best

¶ If you once get this fact firmly fixed in your mind possible radiator troubles will either be a thing of the past or of your own choosing.

¶ The Quality of Mayo Radiators is fixed and their price based on that quality. Where Quality precedes price Mayo Radiators take precedence.

**Mayo Radiator Company**
NEW HAVEN, CONN.


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CAN furnish all kinds of gears of any material and in any quantity, all with accurately cut or planed teeth.

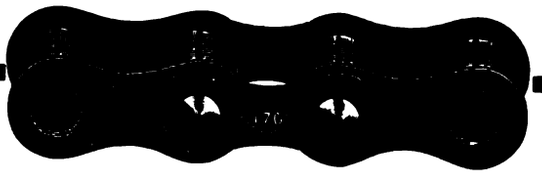
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**The New Process Raw Hide Co.**
SYRACUSE, N. Y.

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**Radiators, Hoods, Fenders, Sheet Metal Parts of All Kinds**

**Briscoe Manufacturing Co.**
General Offices, Detroit, Mich. Factories, Detroit and Newark, N. J.



# DIAMOND CHAINS

are and have been the recognized quality standard for 20 years. Strong, accurate and durable. Let us cut your sprockets.

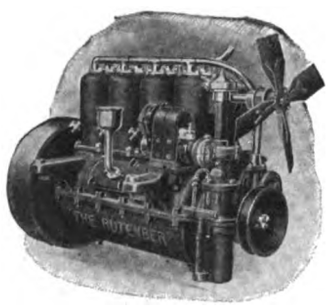
**DIAMOND CHAIN & MFG. CO.**
150 W. Georgia St. Indianapolis, Ind.
Capacity 8,000,000 feet per year.




# Cramp — Metals

## Only a Few Left

**Our Entire Output Practically Sold for 1911**



**Rutenber Motors**
SELL THE CAR

Silent, reliable and durable. None can be made any better. None are made any better.

4 cyls. 4 x4
4 cyls. 4½x5
4 cyls. 4¾x5

Self contained oiling system. Magneto attachment.

**WESTERN MOTOR CO.**
Logansport Ind. Marion, Ind.

# HARDENING

**High Speed Steel Hardening a Specialty**

Case Hardening, Tool Steel Hardening
Heat Treating and Annealing

**BRIDGEPORT METAL TREATING CO.**
Bridgeport, Conn.

# Real Radiators

made of individual square tubes so much imitated in appearance, only.

# FEDDERS RADIATORS

are just what they appear to be—genuine square tubes. Furnished with tubes "staggered" or Mercedes finish.

You See the Fedders on the Finest Cars

FEDDERS MANUFACTURING WORKS, Buffalo, N. Y.

## 7 Strong Wrenches

14 openings from 7-16" to 1¼", or in millimeter sizes from 6 m.m to 25 m.m., put up in a strong kit bag. These wrenches are drop forged of just the right steel, for hard usage. Write for new catalog of auto tools, all drop forged.




**The Billings & Spencer Co.**
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# CORBIN FOR 1910

**"Full Jeweled!" A Splendid Car Perfected!**

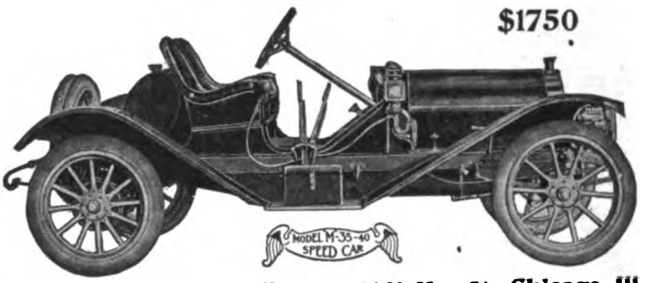
Touring Cars, Runabouts and Toy Tonneaus . . $2,750.00
Including Cape Top, Bosch Magneto and Prest-O-Lite Tank in addition to all regular equipment.

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**The Corbin Motor Vehicle Corporation, New Britain, Conn.**
Licensed under Selden Patent.

# 1910 F·A·L-CAR 35-40

$1750




**FAL MOTOR COMPANY, 163-188 N. May St., Chicago, Ill.**

# Franklin Automobiles

Franklin air cooling does all that water cooling can do, and more. The extra service it gives makes it superior to all other cooling systems.

Air cooling is the ideal system for an automobile engine; it presents the greatest latitude of operation; it affords the lightest, simplest construction.

H. H. FRANKLIN MANUFACTURING COMPANY
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**Investigate This Remarkable**

# $1275 DE TAMBLE

SPECIFICATIONS—4 cycle, 34 h.p.; transmission and engine in a single unit, on 3 point suspension; 115-inch wheel base, 34-inch wheels; 5 passenger touring body; clearance 10¼ inch; top of frame 21 inches from the ground (lowest hung standard touring car in the market); magneto, full lamp and tool equipment.

**A few more LIVE dealers can secure the agency for these QUICK SELLING CARS.**

**CAR MAKERS SELLING CO., 1256 Michigan Ave. CHICAGO**

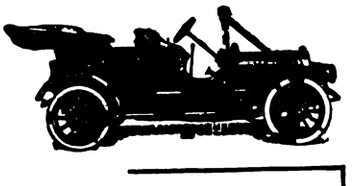
# Badger 30 $1600

112 inch wheel base, 34 inch wheels, quick detachable rims, Bosch dual ignition with storage battery, selective type transmission, Brown-Sharpe gears, F. & S. ball bearings.



*Write for our new liberal agency proposition.*

**BADGER MOTOR CAR COMPANY, Columbus, Wis.**



# $1,600 Cartercar

Model "L," 4 cylinder, 30-35 H.P., 110 inch wheel base, 5 passenger, Friction Transmission, Chain-in-Oil Drive, any number of speeds, will climb a 50% grade with load, including magneto, gas lamps, generator, horn, mats, tools, jack, etc. $1,600.

Model "H," 4 cylinder, 25 H.P., 100 inch wheel base, Runabout $1,100. Double Rumble $1,125 Double Divided Rear Seat $1,150. Miniature Tonneau $1,150.

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**CARTERCAR CO.**
**Pontiac, Mich.**
Licensed Under Selden Patent.

# Regal 30

**"The Ideal Car for all Purposes"**

The only $1250 car with a record of three years of success behind it

**$1250**

**Runabout, Baby Tonneau, Touring Car, Coupe**

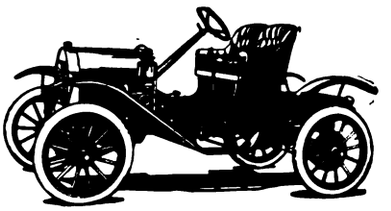
**Greatest Automobile Value in America**

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# EVERYMAN'S CAR

**Seven Models**



**Send for Literature**

# The BRUSH $485.00

**BRUSH RUNABOUT COMPANY**
**414 Baltimore Avenue, Detroit, Mich.**


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# Maxwell Automobiles

## 1910 LINE

**Magneto Equipped**

**9 models, Price $600 to $1575. Included are models E, 4 cyl., 30 H. P. touring car, $1500.**

**Model Q. 4 cyl., 22 H. P. runabout, $900, or light touring car, $1000.**

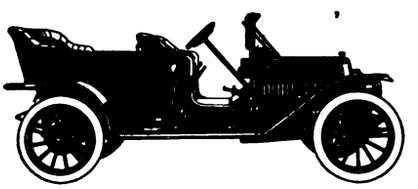
**Model AA, 12 H. P. business runabout, $600.**

**MAXWELL-BRISCOE MOTOR CO.**
**Vale Street, Tarrytown, N. Y.**

THE THOMAS FLYER is the champion endurance car of the world. Over 80 per cent. of the people who own Thomas Flyers previously owned other cars. They were in a position to appreciate automobile values. The Thomas Flyer is now their unqualified choice.

The E. R. Thomas Motor Company maintains a force of traveling experts who periodically call upon every Thomas owner and make sure that his car is in good condition. Let us send you some of the letters from our owners and some of our interesting engineering literature.

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**Model "50"— 4 Cylinder Touring Car, . . $2350**
**Model "40"— 4 Cylinder Touring Car, . . $1700**
**Model "30"— 4 Cylinder Touring Car, . . $1250**

**JACKSON AUTOMOBILE CO.**
Licensed under Selden Patent. JACKSON, MICH.

**Not a Car of Advertised Value, But a Car of Intrinsic Worth.**

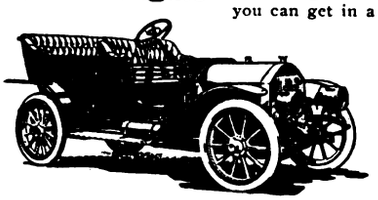
# STERLING

**$1750**
Let us send you our Catalog
**ELKHART MOTOR CAR COMPANY, Elkhart, Ind.**

# =Pierce-Racine=

**The Car with a Famous Engine**

You will have to look to the high priced American and foreign cars for the same value you can get in a Pierce-Racine at— **$1750**



If you were to pay $4,000 for a car you could not get a more satisfactory motor or an easier running car.

Send for catalog today.

**PIERCE MOTOR COMPANY**
**111 22nd St., Racine, Wis.**

# THE SELDEN CAR

## FOR 1910

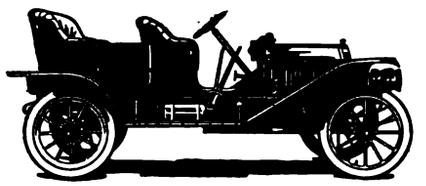
| | |
|---|---|
| 5-Passenger Touring Car | $2,000 |
| 3-Passenger Roadster | 2,000 |
| 4-Passenger Torpedo Tonneau (Magneto Included) | 2,250 |
| 7-Passenger Touring Car (Magneto Included) | 2,500 |

Booklet and specifications upon application.

**AGENTS WANTED IN UNOCCUPIED TERRITORY.**

**SELDEN MOTOR VEHICLE CO.**
GEO. B. SELDEN, President, - ROCHESTER, N. Y.
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# "CLARK CARS" 30 H. P. $1400 40 H. P. $1750



**Good Territory open for Live Dealers**

**Write for Specifications**

General Sales Agents
**THE MEIXELL-DOWNING COMPANY**
**505 Odd Fellow Building, INDIANAPOLIS, INDIANA**
CLARK MOTOR CAR CO., Manufacturers, Shelbyville, Ind.

# K-R-I-T

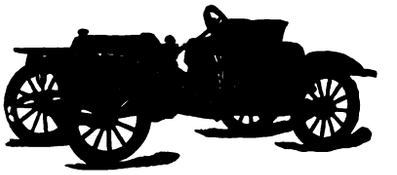
**"The car with the invisible start."**

96 in. wheel base
32 in. wheels

**22½ H. P. $800**

**Sliding gear transmission. Multiple disc clutch. Weight, 1200 lbs.**

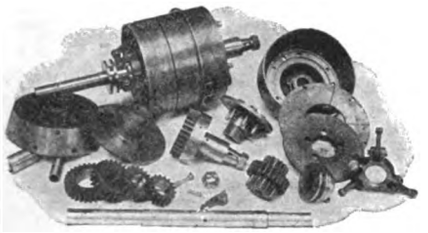
**Runabout $800.**
**Roadster $825.**
**Surrey $850.**



Write for Catalog
**K-R-I-T Motor Car Company**
**DETROIT**


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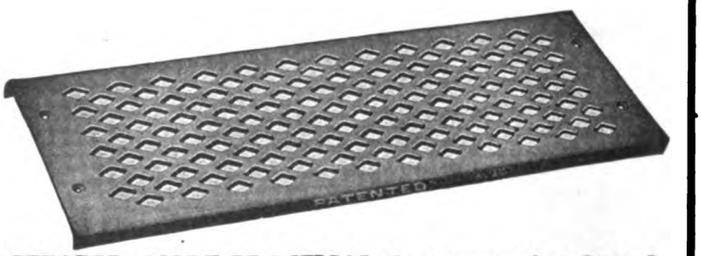
## WARNER GEAR COMPANY
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25 H. P. PLANETARY TRANSMISSION
Showing Both Cone and Disc Type Clutch.

Steering Gears
Transmissions
Differentials
Clutches
and
Control Levers

## PRESSED STEEL RUNNING BOARD



CHEAPER—MORE PRACTICAL than any other board.
*Send Dimensions.*
THE PARISH & BINGHAM CO., Cleveland, Ohio

THE MOST POWERFUL COMPOUND PUMP

## STAPLEY TIRE PUMP

MADE BY BRIDGEPORT BRASS CO.
Price without Gauge, $5.00. Price with Gauge, $7.00
If your dealer doesn't carry it, we will send the "Stapley" prepaid in the U. S. on receipt of price.
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are assured when
## G & J TIRES
are used.
G & J TIRE CO., Indianapolis, Ind.
We Sell Continental Demountable Rims.




## A Real Battery
AT A REAL BARGAIN

We have on hand a number of 6 v. 60 amp. dry type storage batteries, built for us by one of the best known manufacturers. These batteries were built to sell at $26.00 and are worth the money, but as we have accidentally become overstocked, we offer them while they last at $12.50.

No better battery is built or sold at any price.

EXCELSIOR SUPPLY CO. (*Estab. 1876*) Randolph St. Bridge CHICAGO, ILL.

## Woodworth



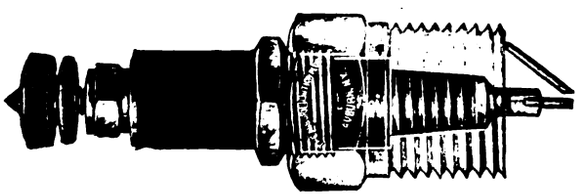
*WOODWORTH TREADS* are the only true tire protectors. They never chafe or heat the tires. They are held in place by coil springs along the sides, which automatically take up all slack and prevent any looseness. The protector is always tight and smooth.

No other protector can be fitted in the way that these automatically fit themselves.

They fit all makes of tires—anyone can easily put them on. *Send for Catalogue.*

Leather Tire Goods Co., Niagara Falls, N.Y.
*Canadian trade supplied from Niagara Falls, Ont.*

## SPARK PLUGS and TIMERS



**No. 2. Mica and Porcelain Interchangeable**

Made of the finest materials and most accurate workmanship, they give the right results. Write us.

**(Please get the name right)**

AUBURN IGNITION MFG. CO., Auburn, N.Y.

## Standard Equipment

means the best in automobile accessories. They eliminate trouble, reduce cost of upkeep and make motoring safe, comfortable and enjoyable.

Jones Speedometers
Jones Electric Horns
Wood Chain Tire Grips
Connecticut Ignition Specialties

UNITED STANDARD EQUIPMENT MANUFACTURERS
WE PROTECT THE DEALER, THE OWNER AND THE CAR

Soot-Proof Spark Plugs
Automatic Windshield
MoToRol
Non-Fluid Oil

UNITED MANUFACTURERS, Inc. 250 West 54th Street, New York


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It is not a question of

**"Can You Afford Commercial Car Service" but "Can You Afford to Be Without It?"**




Model "K" 4 cyl. 1500 pound Delivery Car.

Referring to OUR kind of service—
The oldest builders of commercial cars in America, our product has a known efficiency and its reliability is absolutely guaranteed. There is no experiment, no risk. It is simply a question of effecting a saving now or doing it later on. Hundreds of different lines of business have already done it. Let us see what we can do for you.
We have a fund of information, the result of years of experience, which is at the disposal of intending purchasers. Write us.

**THE ATTERBURY MOTOR CAR CO., Buffalo, N. Y.**




Model "N" 40 H. P. Truck.

THE

# MITCHELL SIX

**The only six cylinder car in the world that sells for so little money.** $2,000



SILENT AS THE FOOT OF TIME

Specifications: MOTOR, 4½x5. TRANSMISSION, selective type. WHEELS, 36x4. WHEEL BASE, 130 inches. IGNITION, magneto and dry cells. Color, dark blue, cream running gear; option, dark maroon, cream running gear. TOOL BOXES, steel baked enamel. SEATING CAPACITY, seven passengers. STEERING WHEEL, natural finish. SPRINGS, platform type. BODY OPTIONS, seven-passenger touring car or close-coupled body. EQUIPMENT, oil lamps and horn, full tool equipment, including jack.

# MITCHELL

Licensed under Selden patent.

*F. O. B. Racine, Wis.* **Racine, Wis., U. S. A.**

# WETHERILL FINISHED CASTINGS

¶ Die cast from Parson's white brass make the finest kind of engine bearings.

¶ Absolutely accurate and every one interchangeable.

¶ We are now making 25,000 bearings per day, and increasing output as rapidly as possible. A case where quality is recognized and put to use.

**WETHERILL FINISHED CASTINGS COMPANY**
PHILADELPHIA, PA.



**DEALERS: Are you handling the**

# EDELMANN TIRE GAUGE?

**If not, why not?**

**They sell on sight! Because they are what every car owner needs. Indicate the exact pressure in the tire at all times.**

**Price $2.00** All dealers or prepaid mail on receipt of price

**E. EDELMANN & COMPANY**
51 W. Kenzie Street Chicago

# The LENOX HOTEL

**BUFFALO, N. Y.**



**Highest Grade**
**Fire-Proof**

The ideal hotel for tourists and visitors to Buffalo, Niagara Falls and points on the Great Lakes.

Patrons may take taxicabs or carriages from depots or wharves direct to the hotel, charging same to The Lenox.

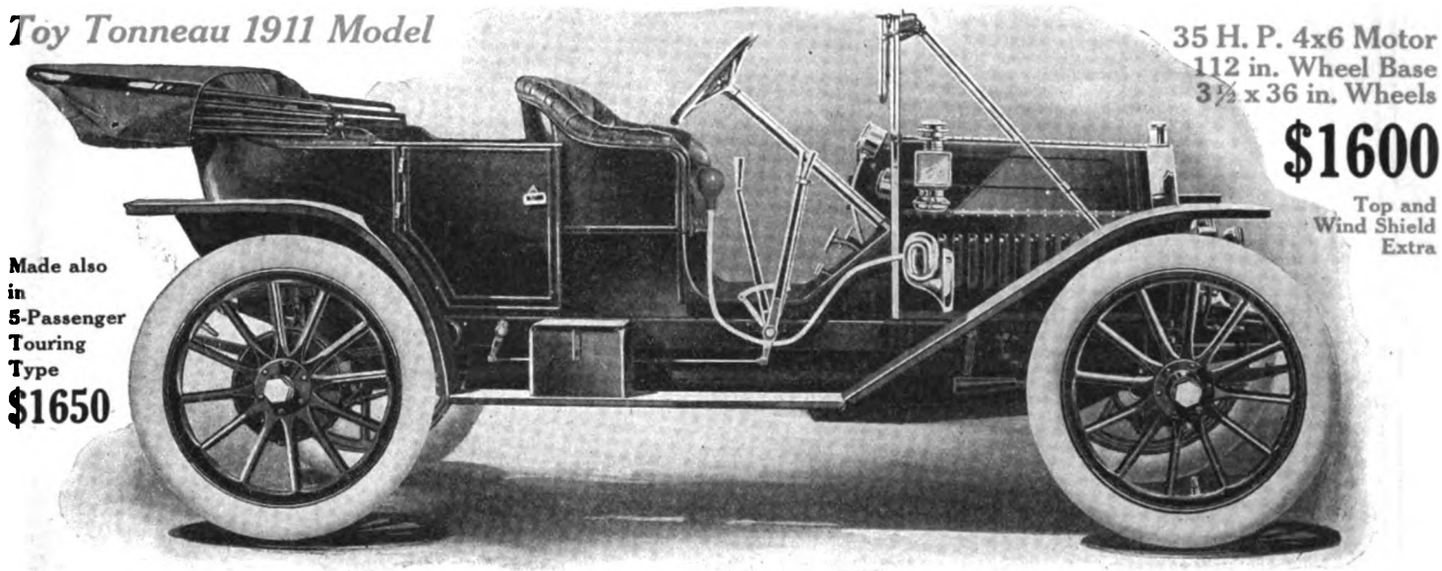
**EUROPEAN PLAN**
$1 50 per day and up.

*Ample Garage facilities near by.*

**C. A. MINER, Manager**


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# Moline WINS Over Every Car Entered In the 1910 GLIDDEN TOUR




**Captures the *CHICAGO TROPHY* making the Best Road Score in that division and Best *FINAL SCORE* of any car in the Entire Tour.**

## Victorious in the Most Grueling Contest Ever Run

NEVER in the history of the Annual Glidden Endurance Run has men or machines been put to such a drastic, grueling grind as that experienced in the 1910 tour just ended.

Never in the history of this national automobiling event has any car ever finished with as high honors as the Moline No. 100, entered in the Chicago Trophy Roadster Division of this season's tour.

It finished the 2,850 miles with a total penalization of only 19 points, which is 72 less than the winner of the Glidden division.

It had a ***perfect*** control score, never being late a single time.

It was the only car which had a perfect brake score (except one) in the entire tour. Had it been entered in the Glidden Division it would have won the Glidden Trophy.

Herewith is the final score of the eleven cars which finished. It shows the ***decisive*** manner in which the Moline ***won over all*** regardless of size, horsepower, price or classification.

### Final Score of Eleven Cars That Finished the Run

| No. | Name | Penalties Points | Horse Power | Price |
|---|---|---|---|---|
| 100 | MOLINE | 19 | 35 | $1600 |
| 107 | Competitor | 51 | 30 | 1575 |
| 102 | MOLINE | 64 | 35 | 1600 |
| 1 | Competitor | 93 | 60 | 3500 |
| 5 | Competitor | 116 | 30 | 1500 |
| 7 | Competitor | 208 | 30 | 1525 |
| 101 | MOLINE | 481 | 35 | 1600 |
| 2 | Competitor | 806 | 40 | 2600 |
| 103 | Competitor | 2042 | 40 | 2500 |
| 10 | Competitor | 2247 | 45 | 2500 |
| 15 | Competitor | 2414 | 40 | 2250 |

### Molines in Best Condition of All At the Finish

The condition of the cars at the end of such a strenuous run tells the story of the "stuff" they are made of, and when the final technical examination was made the committee's report showed the Molines to be in the ***best condition by far of any car in the entire tour.***

The ***total final penalties*** of the three Moline entries ***were less than any one car*** (except one) in the entire tour.

### Never Touched a Tool

The showing of the Moline is all the more remarkable when it is known that all three cars came into Chicago with the ***official seals on their tool bags,*** placed there by the committee at the start of the tour at Cincinnati, and further, repeating last year's performance in this respect—***and again, none were needed.*** No other car in this nor last year's tour ***dared*** to start without a full supply of extra parts. This feat, accomplished twice, certainly illustrates the ***absolute dependability*** of the Moline, especially considering the terrible road conditions of this tour and the added fact that we had ***absolutely***

| | |
|---|---|
| No Motor Trouble | No Lubrication Trouble |
| No Magneto Trouble | No Ignition Trouble |
| No Clutch Trouble | No Axle Trouble |
| No Carburetor Trouble | No Frame Trouble |
| No Transmission Trouble | No Wheel Trouble |
| No Brake Trouble | No Spring Trouble |

In short, we had ***no trouble*** of any consequence. The slight road penalties we received (12) were for loose radiator nuts and taking water and gasoline outside of control, which, considering the ***tropical heat,*** were to be expected.

### Not a Single Extra Part Was Carried

There was never a more fearful, grueling grind attempted. We cannot describe the terrible roads, swamps, stumps, sand, stones, hills and streams. Added to this was heat as ***"hot as hades"*** and before many days passed the contest turned into one of elimination, as one by one the cars fell by the wayside ***forced to give up.*** At the end of the ninth day less than half of the contestants remained. Only 11 out of 26 starters finished the run.

### What the 1911 Moline Affords the Buyer

The purchaser of the 1911 Moline will get the biggest value in ***proved automobile merit*** money can buy. He can pay more but he cannot equal the ***intrinsic worth*** embodied in the 1911 Moline as ***proved*** by this tour.

This season's model will be built in two styles—***Touring Car*** and ***Toy Tonneau***—five and four passenger, both on same chassis, same specifications. It will have

| | |
|---|---|
| Larger Engine | Longer Springs |
| Larger Wheels | More Power |
| Larger Tires | More Speed |
| Longer Wheel Base | More Room |
| Longer Hood | More Style |

Following is brief specifications. Compare them with others and you will realize the decided superiority of the 1911 Moline. Then, remember, the 1911 Moline has ***proved*** its merit in the most ***critical test*** ever imposed on an automobile and ***won over all competitors most decisively.***

### *Brief Specifications:*

**Power**—35 horse power.
**Motor**—4 cylinder 4 in. bore, 6 in. stroke, water cooled, thermal circulation.
**Drive**—Shaft.
**Transmission**—Vertical, selective, three speeds forward, one reverse. Full roller bearing.
**Rear Axle**—Bevel gear.
**Front Axle**—I Beam.
**Lubrication**—Precision combined with splash system.
**Ignition**—Double independent system.
**Control**—Spark and throttle on steering wheel—foot accelerator, muffler cut out.
**Brakes**—14 in. double acting.
**Clutch**—Leather faced, cone, cork inserts.
**Wheels**—12 spoke artillery.
**Tires**—3½x36.
**Wheel Base**—112 inches.
**Price**—$1600.

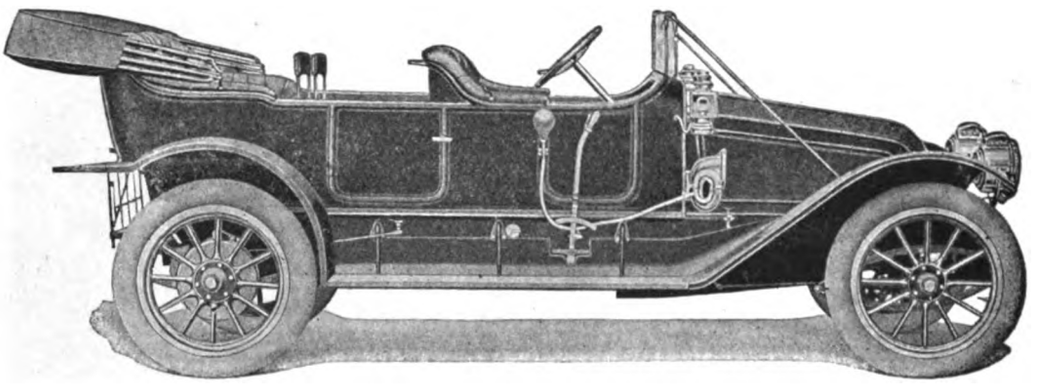
**Moline Automobile Co.** Licensed Under the Selden Patents **61 Root St., E. Moline, Ill.**

*Write for Advance Bulletin **No. 61** and Story of This Interesting Glidden Run*

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# Franklin "The Car Beautiful"

1911 1911



Seven-passenger open body

**New Features:** Handsome flush-sided bodies; beautiful new hood; new oiling system, overcoming smoking; quiet valve action; engine air jacket arranged to give complete accessibility; more room between the dash and the front seat and greater rake to steering column. ¶ Model G has a longer wheel base. Model D is larger and has six 4 x 4 cylinders. Model H is larger, with six 4½ x 4½ cylinders. M is a new model, with four 4 x 4 cylinders. Top is standard equipment on all models.

**List of Models:** Model H, 48-horse-power, six-cylinder, 133-inch wheel base, is fitted with seven-passenger open body or double torpedo-phaeton body. ¶ Model D, 38-horse-power, six-cylinder, 123-inch wheel base, is fitted with five-passenger open body, double torpedo-phaeton body or seven-passenger limousine or landaulet body. ¶ Model M, 25-horse-power, four-cylinder, 108-inch wheel base, fitted with five-passenger open body or five-passenger limousine or landaulet body. ¶ Model G, 18-horse-power, four-cylinder, 100-inch wheel base, fitted with four-passenger open body or single torpedo-phaeton body.

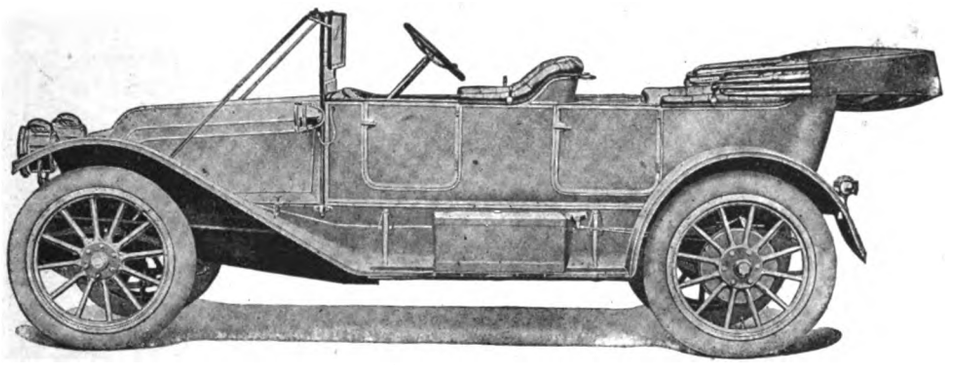
The new Franklin hood lends itself perfectly to the flush-sided body. With no radiator to spoil the effect the body and hood lines are blended harmoniously.

Beauty in the Franklin is thrice beautiful because of its resilient construction, which gives the only luxurious riding, and because of its tire equipment, which eliminates the annoyance and expense of tire trouble.

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# Franklin "The Car Beautiful"

1911 1911



Double torpedo-phaeton

Compare the Franklin construction with the ordinary construction. This is what the comparison will show:

| Franklin Construction | Ordinary Construction |
|---|---|
| Laminated-wood chassis frame construction. | Steel chassis frame construction. |
| Full-elliptic springs. | Semi- or three-quarter-elliptic springs. |
| Air cooling. | Water cooling. |
| Cooling always the same; no attention; no trouble. | Danger of freezing. |
| Large tires on light, quick detachable rims. | Small tires on heavy, demountable rims. |
| Not necessary to carry extra tires and rims. | Extra tires and rims required. |
| Extraordinary tire mileage. | Ordinary tire mileage. |
| One system of ignition. | Two systems of ignition to get same result. |
| No strut or reach rods. | Strut and reach rods. |
| Control by throttle lever. | Control necessitates both throttle and spark lever. |

Franklin air cooling is the ideal system for an automobile engine; it presents the greatest latitude of operation; it affords the lightest, simplest construction. It does all that water cooling can do, and more. The extra service it gives makes it superior to all other cooling systems.

To set forth in detail all the advantages of Franklin air cooling over water cooling would require another page, but the features which are bound to decide you are: Simplicity, freedom from attention, independence of climate and weather conditions, reliability, there being nothing to break down, and a higher thermo-dynamic efficiency.

New catalogue on request.

H H FRANKLIN MANUFACTURING COMPANY Syracuse N Y

Licensed under Selden Patent

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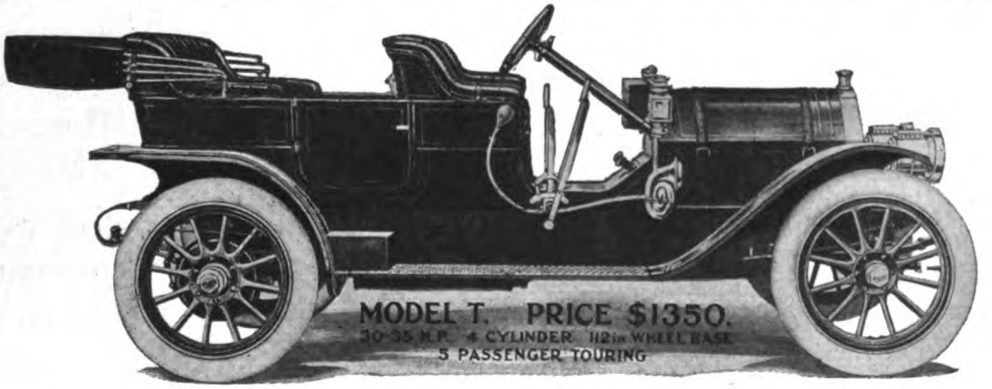
# Mitchell



SILENT AS THE FOOT OF TIME

The car you ought to have at the price you ought to pay.

The car that will endure long after the great majority of cars have been forgotten.



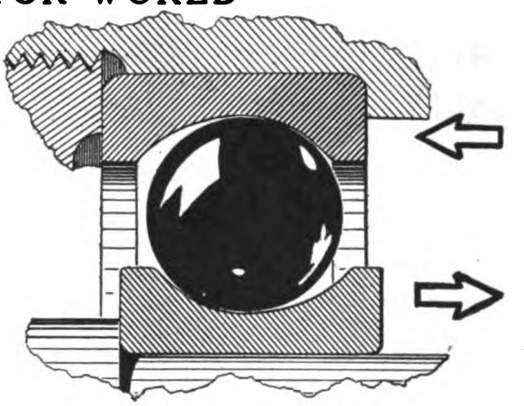

PARIS ADDRESSES
20 RUE DE TILSITT & 4
AVENUE Mc MAHON

Mitchell-Lewis Motor Co.
SUCCESSORS TO
Mitchell Motor Car Co. and Mitchell & Lewis Co. LTD
Racine, Wis. U. S. A.

LICENSED UNDER
SELDEN PATENT
PRICES F.O.B. RACINE


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# Concerning End Thrusts



There is one little feature of HESS-BRIGHT Annular Ball Bearings which is difficult to show, yet highly important in many cases.

Owing to a certain feature (presently described) of the patented HESS-BRIGHT construction, HESS-BRIGHT Annulars successfully carry end loads far in excess of those practicable with other annular types.

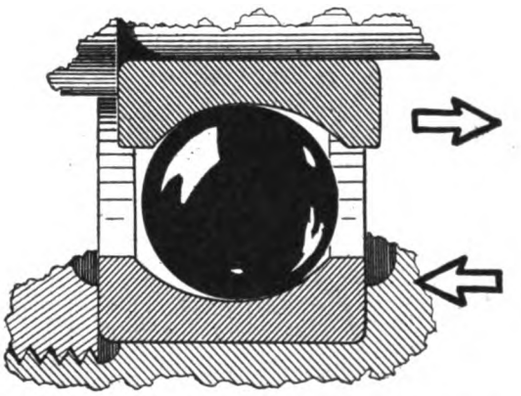
An automobile has many bearings whose chief loads are radial, but which must frequently carry end loads as well. Among them are the front hubs — an embarrassing problem for most annular bearings on account of the racking end thrusts on road curves. Likewise the propeller shaft bearings, if the shaft has a slip joint. Likewise certain gear shaft bearings, especially that next to the propeller shaft. As for the rear axle, two-thirds of the bearings in it are subject to end loads, either steady or occasional.

HESS-BRIGHT Annulars have carried and are carrying these end loads successfully in thousands of cars. Why?

Let us glance at the manner in which H.-B.'s are assembled. Each race has a continuous side wall sufficient to retain the balls under any possible condition of looseness or wear. It is unnecessary to limit the balls to a stark geometrical path line lest a little play shall permit them to hammer against the ends of side grooves. Therefore we can — and do — make the balls a trifle loose in the races, though still microscopically uniform in size.

This looseness permits the balls under end thrust to ride up slightly on the inclines of their paths like a bicycle on the turn of a banked track. The wedging action, which with tightly fitted balls would be destructive, is thereby reduced to safe limits.

HESS-BRIGHT Annulars have made records of 60,000 and 70,000 miles in front wheel hubs. You can imagine what they will do under conditions less severe.



**Action (exaggerated) of Hess-Bright annular bearing under end thrust.**

THE HESS-BRIGHT MANUFACTURING CO.
2109 Fairmount Avenue
PHILADELPHIA, PA.

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# APPERSON

## Apperson Brothers' Sales Policy for 1911

For seventeen years we have carefully shaped our selling organization.

It has grown in accordance with the growth of our plant.

We have invariably selected men who were thorough believers in the Apperson car, as against every other car near its class.

Apperson dealers prosper; are recognized as representing a high grade proposition.

Each year their communities absorb more Appersons. Every Apperson owner is a volunteer assistant for them.

We greatly increased production for 1911; we shall again increase our selling force.

Again we shall choose with care. We want the best dealers possible; firm believers in the Apperson—men who have convictions plus enthusiasm and energy.

The Apperson line is broad enough to be a sound business in itself.

It is a satisfactory line; there is nothing to apologize for or to explain. No criticism—no disappointments; the continuance of seventeen years' satisfaction to Apperson owners.

Appointments can be made at the plant by wiring our Sales Manager. Dont let this opportunity slip by. August first will be too late for you to receive consideration.

Elmer Apperson Pres.

### 1911 Line

**FOUR-THIRTY**

Four-cylinder 30 H. P., five-passenger Touring Car. Price, $2,000. Motor, 4½ x 5 inches. Wheel base, 114 inches. A car unequalled at its price.

**FOUR-FORTY**

Four-cylinder 40 H. P. seven-passenger Touring Car. The snappiest, most popular seven-passenger car on the market. Price, $3,000.

**FOUR-FIFTY**

Four-cylinder 50 H. P., seven-passenger Touring Car. "The Highest Grade Car in the World." Price, including top and demountable rims, $4,200.

All 1911 Models are now ready to show at the factory and for delivery to dealers.

We build in our own factory, not merely assemble, all Apperson cars, including radiators, motors, transmissions, front and rear axles, steering gears, controlling levers, painting, upholstering, etc.

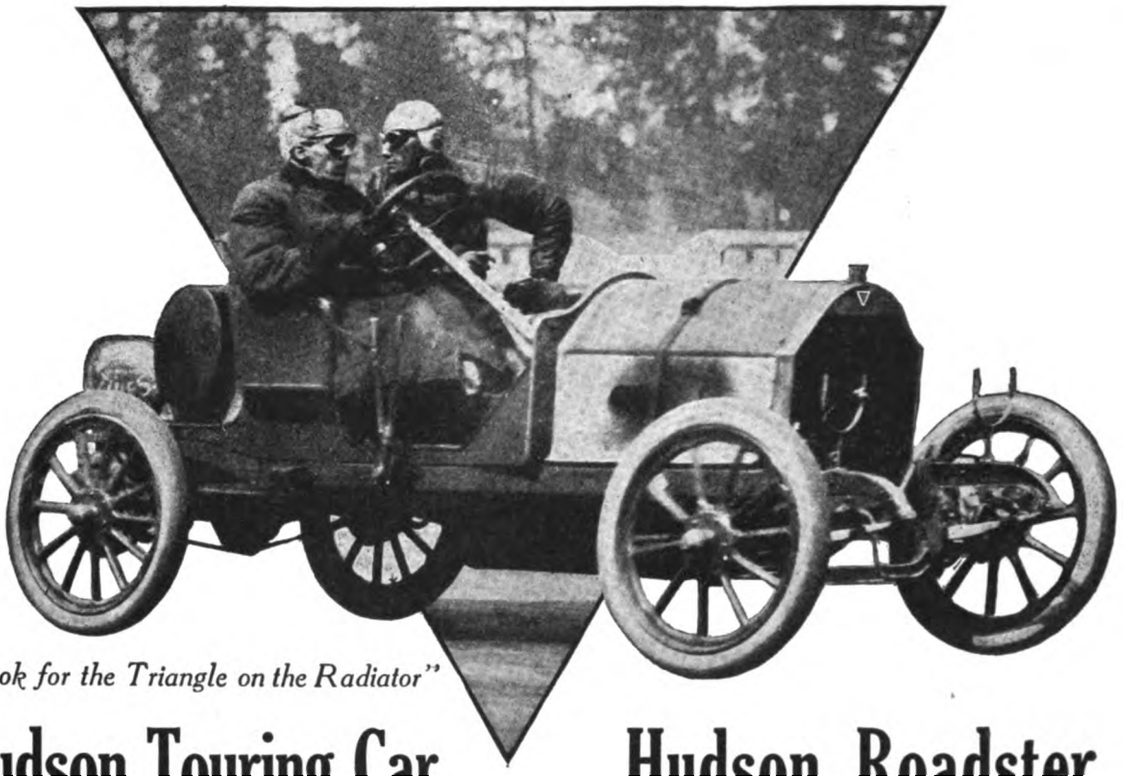
A cordial invitation is extended to dealers to visit our plant.

## Apperson Brothers Automobile Company

**Kokomo, Indiana**

Licensed under Selden Patent

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*"Look for the Triangle on the Radiator"*

# Hudson Touring Car $1150

# Hudson Roadster $1000

## Speed is an important factor in a motor car. Important because it indicates power.

Although you may never require excessive speed, it is a lot of satisfaction to know that you have the power to develop it. That same power you will find necessary on hilly, muddy or sandy roads.

The Hudson will travel any road that any other automobile will travel of whatever horsepower.

Too much power is a useless weight and useless expense. You would not use four horses to pull a buggy if two would do the work as well. The right amount of power consistent with low cost of operation is what you get in a Hudson. Hudson power was carefully worked out in proportion to Hudson weight. It is ample for every emergency.

**Hudson Motor Car Company, Detroit, Mich.**

***Licensed Under Selden Patent***

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# ★The Most Nearly Complete Possible Glidden Tour Tire Record Shows, as Always, a Conspicuous

# Diamond

## TIRE SUPERIORITY

## Particularly on Wear and Shock Resistance.

**★WITH TRUTH AND ACCURACY NO ONE**

can give a complete statement of tire changes in the Glidden Tour. Too many cars were off schedule to permit of it. Figures represented as complete are necessarily misleading, and absolutely incorrect figures have appeared and will appear.

It was a terrific tire test—a feat of extreme endurance, rather—and the only correct, and most nearly as possible complete statement is:

**14 cars used Diamond strictly stock tires**
**17 cars used highest competing make**
**7 cars used other makes**
**10 cars on Diamond were at the finish**
**11 cars on highest competing make were at the finish**
**4 cars on other makes were at the finish**

**THERE WERE**

**4 blowouts on Diamond tires**
**12 blowouts on largest competing make**
**8 blowouts on other competing makes**
**3 Diamond tires replaced on account of wear**
**6 largest competing make replaced on account of wear**
**13 Diamond tires replaced on account of cuts**
**15 largest competing make replaced on account of cuts**
**55 Diamond tires were punctured**
**63 largest competing make were punctured**

We could present in detail the evidence that Diamond tires carried the heaviest loads, etc., etc., but—as usual, all makes of tires in the tour won something or other, and—

**What's the Use!!**

**DIAMOND TIRES ARE THE BEST AND—USERS KNOW**

**THE DIAMOND RUBBER CO., Akron, Ohio**


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# The Winning Glidden Cars

1910 Premier
1909 Pierce
1908 Pierce

were equipped with

# TIMKEN ROLLER BEARINGS

ON FRONT WHEELS
—the point of severest abuse


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# The Equipment of America's Best Cars

The following automobile manufacturers permit us to announce that they are using Firestone Quick-Detachable Demountable Rims:

| | |
|---|---|
| The Acme Motor Car Co., | Reading, Pa. |
| American Locomotive Co., | Providence, R. I. |
| The Bartholomew Co., | Peoria, Ill. |
| The Berkshire Car Co., | Pittsfield, Mass. |
| B. C. K. Motor Car Co., | York, Pa. |
| Chadwick Engineering Works, | Pottstown, Pa. |
| Chalmers Motor Co., | Detroit, Mich. |
| Coates-Goshen Mfg. Co., | Goshen, N. Y. |
| Cole Motor Car Co., | Indianapolis, Ind. |
| The Corbin Motor Vehicle Corp., | New Britain, Conn. |
| The Croxton-Keeton Motor Co., | Massillon, O. |
| Fal Motor Co., | Chicago, Ill. |
| Inter-State Automobile Co., | Muncie, Ind. |
| Marion Motor Car Co., | Indianapolis, Ind. |
| Matheson Automobile Co., | New York City |
| Mercer Automobile Co., | Trenton, N. J. |
| Moline Automobile Co., | East Moline, Ill. |
| Moon Motor Car Co., | St. Louis, Mo. |
| Mora Company, | Newark, N. Y. |
| National Motor Vehicle Co. | Indianapolis, Ind. |
| Owen Motor Car Co., | Detroit, Mich. |

"Firestone" Quick-Detachable Demountable Rim

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# "Firestone" Quick-Detachable Demountable Rims

Packard Motor Car Co., . . . Detroit, Mich.
Palmer & Singer Mfg. Co., Long Island City, N. Y.
The Pope Mfg. Co., . . . . Hartford, Conn.
Premier Motor Mfg. Co., . . Indianapolis, Ind.
Pullman Motor Car Co., . . . . York, Pa.
Selden Motor Vehicle Co., . . Rochester, N. Y.
Simplex Motor Car Co., . . . Mishawaka, Ind.
The Speedwell Motor Car Co., . . Dayton, O.
Springfield Motor Car Co., . . Springfield, Ill.
Staver Carriage Co., . . . . Chicago, Ill.
Studebaker Automobile Co., . South Bend, Ind.
The Stuyvesant Motor Car Co., . Cleveland, O.
E. R. Thomas Motor Co., . . . Buffalo, N. Y.
Velie Motor Vehicle Co., . . . . Moline, Ill.

—and most of the other progressive manufacturers realize the great advantages of this equipment and are large users of the up-to-date Firestone rims.

Firestone Quick-Detachable Demountable Rims are growing in popular favor faster than any other demountable rims. Up-to-date cars demand up-to-date demountable rim equipment.

No lugs or staybolts to bother with—any number of tire changes possible per trip—easiest to operate and safest to use.

THE FIRESTONE TIRE & RUBBER CO.

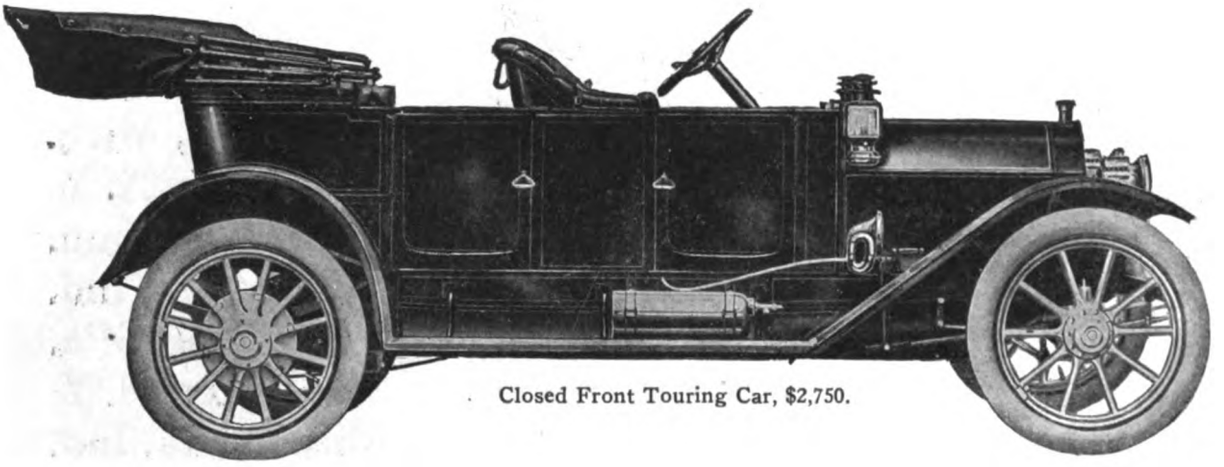
"America's largest exclusive tire makers." Akron, O. Branches, agencies and dealers everywhere.

# The Equipment of America's Best Cars


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# THE MARMON

**"The Easiest Riding Car in The World"**



Closed Front Touring Car, $2,750.

# 1911—ANNOUNCEMENT—1911

THE history of the Marmon has been a story of progressive development and improvement. The 1911 models will, we believe, prove a revelation to our friends, notwithstanding they have come to expect in the Marmon the very best that can be produced in high-class motor cars. The wheelbase has been lengthened to 120 inches, adding not only to the beauty of the car but to its roominess and easy-riding qualities. A complete line of closed front bodies, as shown in the illustrations, is offered, while the open front body is furnished to those who prefer that type. Limousine, landaulet and coupe bodies to order.

The same silent, powerful motor that has carried the Marmon fame around the world is used. But one chassis is offered, as heretofore, with no changes in mechanism except a few minor improvements and refinements of construction.

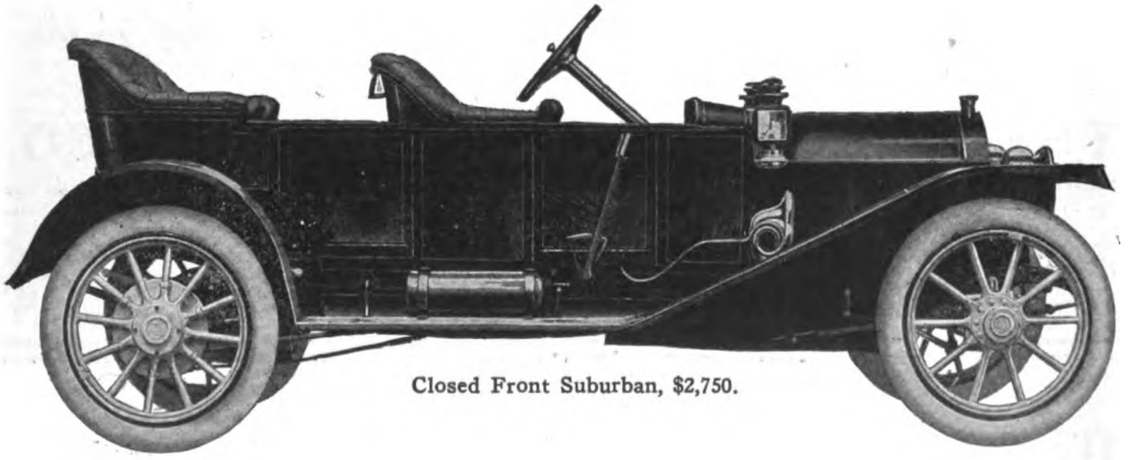
The Marmon is the rational, logical car, moderate in size and capacity, light in weight with an abundance of power; exceptionally well proportioned, well balanced, it answers all requirements for city use and touring with greater comfort and economy than any other type of car. Larger capacity means larger size; larger size means greater weight; greater weight means heavier expense. These things the knowing motorist avoids—or does not adopt except in case of actual need.

The great popularity of the Marmon has proved that the public needs and appreciates just such a car—large enough and powerful enough to carry five passengers over any kind of roads and through any emergency, made as well as it is possible to make any car and sold at a price commensurate with the high value given.

The consistent success of the Marmon in road and track races, of which it holds many world's records, in road endurance contests and in hill climbing events, proves the worth and stability of the car beyond question. Made in one factory—a product not excelled and rarely equalled in this country or abroad.

### Outline of Specifications:

**Motor**—Water-cooled, 4 cylinders. 4½-inch bore. 5-inch stroke. 32-40 H. P. Cylinders cast in pairs. Valves on opposite sides. **Lubrication**—Marmon system of automatic force feed. **Ignition**—High tension magneto and battery, dual system. **Drive**—Straight line shaft. Fabric faced cone clutch. **Transmission**—Selective sliding gear. 3 speeds forward. 1 reverse. Mounted adjoining differential, rear axle unit. Entire gear set removable through rear of axle. **Brakes**—Very large, effective and durable. Dustproof. Convenient adjustment. **Wheelbase**—120 inches. **Tires** 34x4. Q. D. Marsh rims, 32x4. **Steering Gear**—Irreversible. One adjusting nut takes up all play. 18-inch wheel. **Gasoline Tank**—17 gallons. Gravity feed. **Springs**—Rear, full elliptic; front, semi-elliptic. **Body**—Marmon perfected cast aluminum body with sheet metal seats. **Finish**—Blue-black bodies with gray stripe; running gears, gray with black stripe. **Upholstering**—The finest obtainable; genuine leather; luxuriously comfortable. **Equipment**—Two 8-inch gas lamps; option of generator or Prest-O-Lite tank. Dash and tail lamps. Horn. Coat rail. Foot rest. Pump, jack and complete outfit of tools.

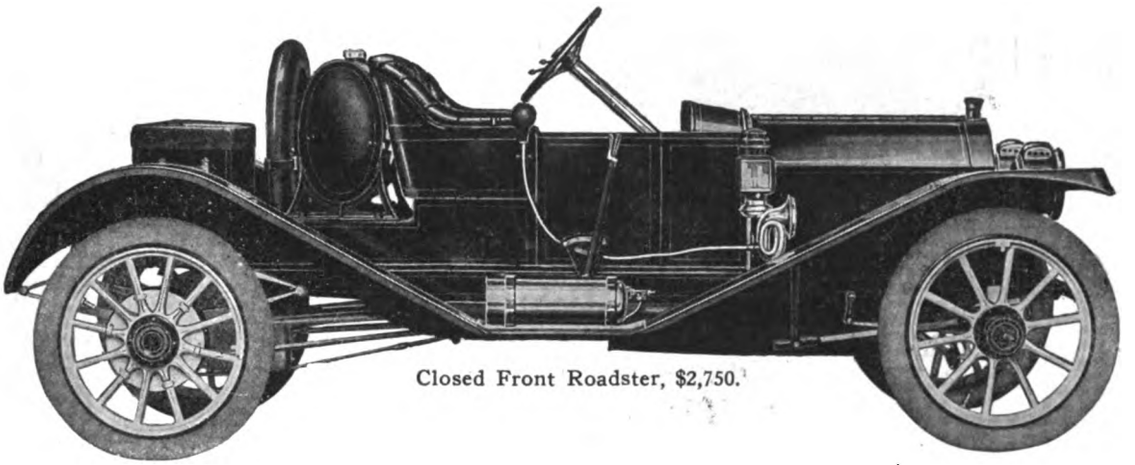


Closed Front Suburban, $2,750.

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# THE MARMON

**"The Easiest Riding Car in The World"**



Closed Front Roadster, $2,750.

# Won the Cobe Race

## The Great Western Classic

The Cobe race, run this year at 200 miles, proved the speed sensation of the year. It attracted to the Indianapolis Speedway the best cars and driving talent of the country. It was open to all stock chassis up to 600 cu. in. displacement, and the character of the contest may be judged from the fact that last year's Vanderbilt winner came in fourth. Dawson's Marmon won, clipping 10 minutes and 28 seconds off the record and Harroun's Marmon was a close third. Only two Marmons entered, both were stock chasses in every particular, and both were in the pink of condition at the end of the race.

## What Such Victories Mean

More important than high power, much more important than high speed are the great durability, the tire economy and the high factor of safety demonstrated by these victories won at lightning speed. Top speed throws a terrific strain on every part of the car. The world produces very few cars so well built, of such fine materials, that they can stand speed around 70 and 80 miles per hour for more than a few miles. The Marmon stands it for 100 miles, 200 miles or more, whenever called upon, as has been demonstrated repeatedly.



### Great Racing Victories Within a Year.

Vanderbilt Race—Autumn of 1909, 189.6 miles in 190 minutes, WITHOUT A STOP (winning Wheatly Hills Trophy).

Atlanta Speedway—Autumn of 1909, 120 miles in 109 minutes, WITHOUT A STOP (winning Atlanta Speedway Trophy).

New Orleans Mile Horse Track—Autumn of 1909, 100 miles in 107 minutes WITHOUT A STOP (winning the race).

New Orleans Mile Horse Track—Autumn of 1909, 50 miles in 54 minutes, winning the race WITHOUT A STOP.

Los Angeles Ascot Horse Track—April, 1910, 100 miles in 103 minutes WITHOUT A STOP, winning the race.

Los Angeles Ascot Horse Track—April, 1910, 50 miles in 50 minutes 16⅗ seconds, winning the race and beating the one mile track record for the distance. Another Marmon won second place in this race.

Los Angeles Motordrome—April, 1910, 100 miles in 85 minutes 22 seconds WITHOUT A STOP (winning the race and making record for Class 3-C, averaging 70½ miles per hour).

Los Angeles Motordrome—April, 1910, 50 miles in 39 minutes 53.55 seconds, winning the race and breaking the record for the class from 15 to 50 miles. Stock chassis race Class C, Division 4, 301 to 450 cu. in. Another Marmon won second place in a close finish—both WITHOUT A STOP.

Los Angeles Motordrome—April, 1910, 148 miles WITHOUT A STOP, in the two hours' free-for-all stock car race, winning by 8 miles against a strong field of foreign and American cars, and averaging 74⅕ miles per hour, breaking records from 55 miles up.

Los Angeles Motordrome—April, 1910, free-for-all stock cars up to 600 cubic inches, 100 miles in 76 minutes 21.9 seconds WITHOUT A STOP (winning $1,000 cash prize and trophy, breaking the world's record for cars regardless of class), averaging 78.6 miles per hour. Marmon "Thirty-two" stock car, 318 cubic inches.

Atlanta Speedway—May, 1910, 200 miles in 182½ minutes WITHOUT A STOP (winning Speedway Trophy), an average of 65.4 miles per hour.

Indianapolis Speedway—May, 1910, Wheeler & Schebler Trophy, open event up to 600 cubic inches, 200 miles in 166½ minutes. One stop only for fuel.

Indianapolis Speedway—May, 1910, Remy Grand Brassard and Trophy, 231 to 300 cu. in. Fifty miles in 42½ minutes. Marmon first and second.

Indianapolis Speedway—July, 1910, Remy Grand Brassard and Trophy, 100 miles—stock cars 301 to 450 cu. in. Marmon-Dawson second, two stops for tires—beaten by 5⅗ seconds. Marmon-Harroun third, without a stop. Both cars beating the previous record for the class and distance.

Indianapolis Speedway—July, 1910, Cobe Cup, stock chassis up to 600 cubic inches. 200 miles in 163 minutes 20.1 seconds, clipping over 10 minutes off the record. Marmon first, two stops for tires; Marmon third, one stop for tires.

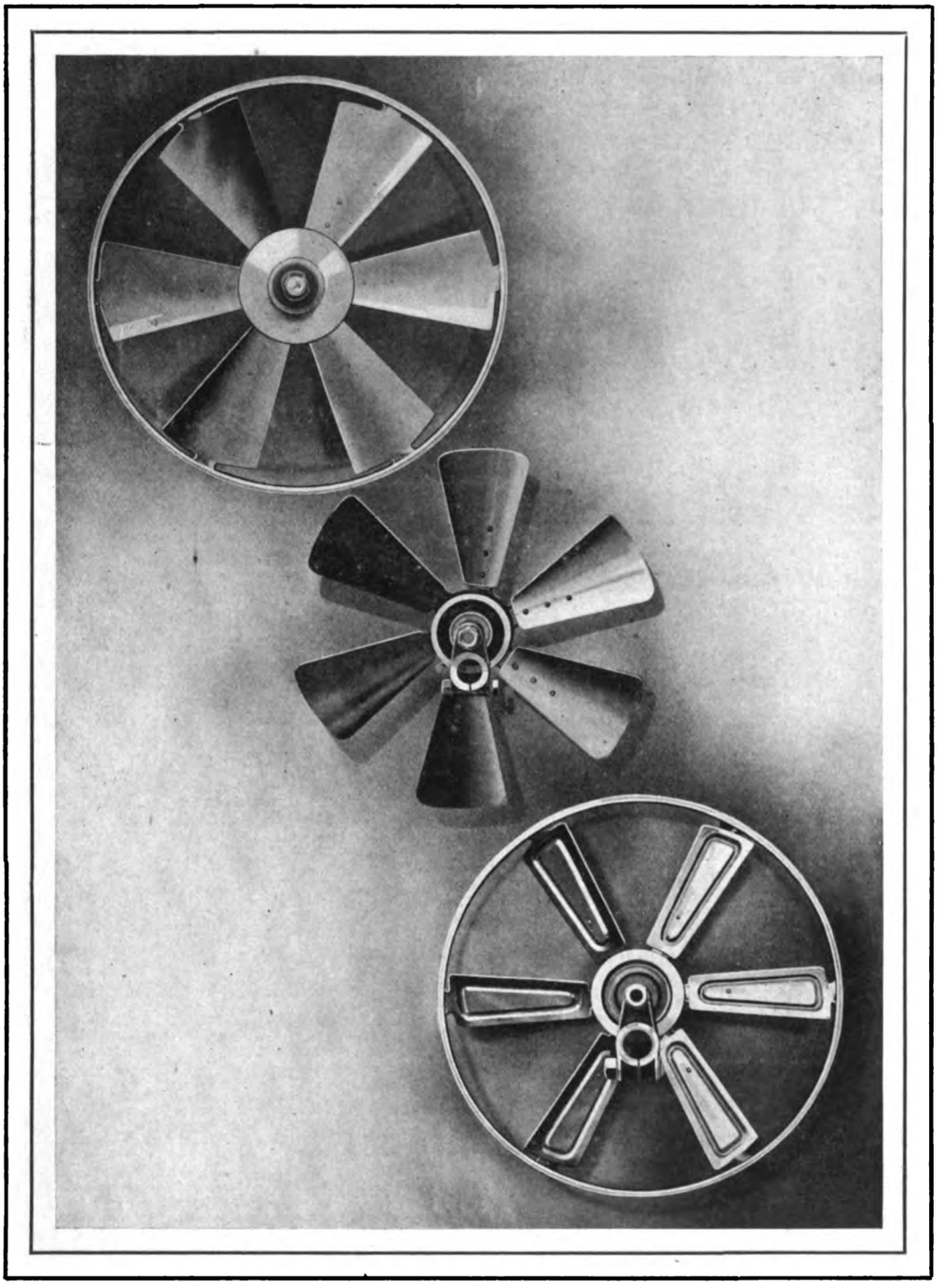


## NORDYKE & MARMON CO. (Estab. 1851) Indianapolis, Ind.

Licensed under Selden patent.

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# McCORD AUTOMOBILE FANS



**Neatly Designed—Highly Efficient—Great Strength—Ball Bearings Throughout. In Quantities—and When You Want Them.**

## McCORD MANUFACTURING COMPANY

CHICAGO DETROIT NEW YORK


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# MAXWELLS MAKE BEST TEAM SCORE IN GLIDDEN

## Model E. in Chicago Trophy class received less penalties than Glidden Trophy Winner.

# "Maxwell" Endurance

**is again convincingly established**

# HERE'S THE PROOF

## Team Scores

| CAR | NO. OF CARS ENTERED | TOTAL PENALTIES | AVERAGE |
|---|---|---|---|
| **Maxwell** | 2 | 259 | 129½ All finished |
| Nearest competitor (Moline) | 3 | 564 | 188 " " |
| Third " (Premier) | 2 | 899 | 449½ " " |
| Fourth " (Chalmers) | 3 | 3,307 | 1,102⅓ one " |
| Fifth " (Parry) | 2 | 2,240 | 1,120 none " |
| Sixth " (Ohio) | 2 | 2,744 | 1,372 " " |
| Seventh " (Lexington) | 2 | 3,141 | 1,570½ one " |
| Eighth " (Cole) | 2 | 3,559 | 1,779½ none " |
| Ninth " (Cartercar) | 3 | 6,683 | 2,227⅔ " " |

| INDIVIDUAL SCORES | TOTAL PENALTIES | |
|---|---|---|
| Westcott | 1,122 | did not finish |
| Fal-Car | 1,143 | " " " |
| Pennsylvania | 1,504 | " " " |
| Glide | 2,247 | finished |
| Cino | 2,414 | " |

WE REPEAT the old story that Maxwell Cars do not work miracles today and languish tomorrow. They serve their owners day after day, 365 days in every twelve months with unerring fidelity, giving the utmost reliability, stability and efficiency on the lowest possible cost of upkeep. Let us tell you more about them. Drop us a postal. Just say "MAIL BOOKS."

## MAXWELL-BRISCOE MOTOR CO.

**VALE STREET, TARRYTOWN, N. Y.**

**Sales Bulletin**

**Sold to May 31, 1910, 29,545**
**Sold during June, 1910, 2,243**
**Maxwells in use today, 31,788**

**Factories**

NEW CASTLE, IND. PROVIDENCE, R. I.
TARRYTOWN, N. Y. KINGSLAND POINT, N. Y.

*Licensed Under Selden Patent—Members A. L. A. M.*

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Selecting the best—taking no chances—anxious to win, they chose

# GRAY & DAVIS Lamps

for the triumphant Glidden Tour PREMIER car. They know all kinds of lamps thoroughly, too.

This is how the lamps helped them win:

**THE WESTERN UNION TELEGRAPH COMPANY.**
INCORPORATED
23,000 OFFICES IN AMERICA. CABLE SERVICE TO ALL THE WORLD.
ROBERT C. CLOWRY, President and General Manager.

| Receiver's No. | Time Filed | Check |
|---|---|---|
| 21 | 2.30 P. M. | |

Indianapolis, Ind., July 2, 1910.

Gray & Davis,
Amesbury, Mass.

Premier No. 1, the winner of the 1910 Glidden Tour, was equipped with standard GRAY & DAVIS lamps. The excellent service from these lamps was appreciated when for the first time in the history of the Glidden Tour, contestants were compelled to run at night by official schedule.

PREMIER MOTOR MFG. CO.

Remember that they chose Gray & Davis lamps. Could you choose better?

GRAY & DAVIS, Amesbury, Mass.

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"TWO YEARS AHEAD"

Completely equipped—Nothing to buy but license tag and fuel. Price $4000.

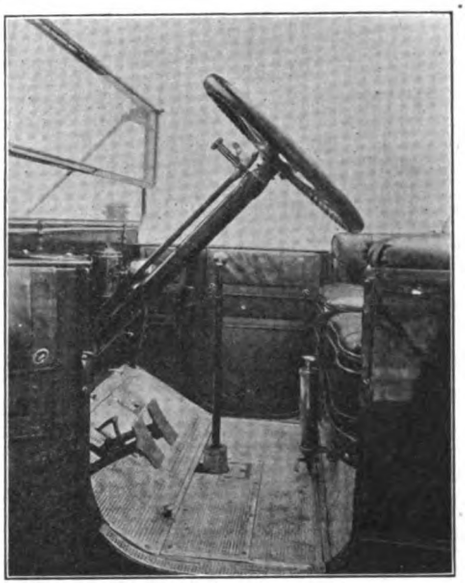
"The 1911 Owen"

50 H. P. Long stroke motor—42 inch wheels—120 inch wheelbase. Weight complete 3400 lbs.

## The Only American Touring Car Having Left Hand Drive with Right Hand Control

Every motorist will appreciate the advantages of the arrangement of the steering and the control in the Owen.

There are other cars having the left hand drive, but they have the control lever at the left-hand side, also an unnatural arrangement for right-handed persons. In the OWEN the lever controlling the transmission is located in the center of the floor boards. This lever having a ball on top which makes a more convenient hand hold, works in a ball socket joint mounted on the transmission case below, and similar in its action to the gate or H plate. This lever controls three speeds forward and one reverse. It is mounted far enough forward of the seat line to permit passing to either front seat conveniently. Speed changes are effected by rocking the lever



to right or left, then forward or backward to the desired engagement.

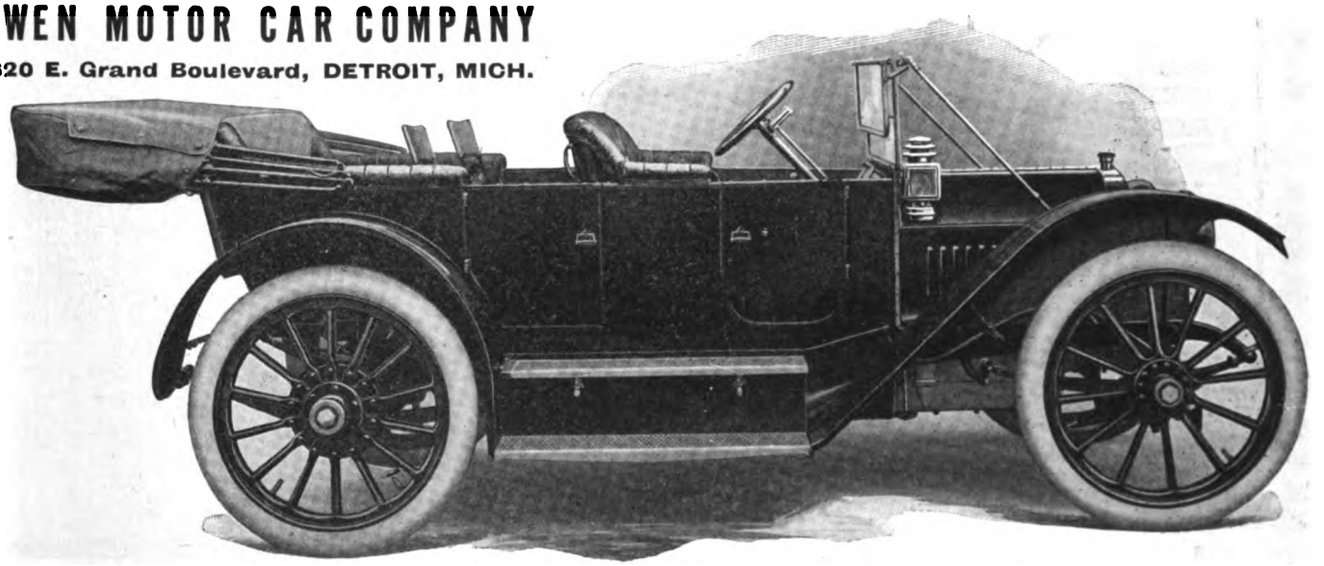
The left hand position permits of a clearer view of the roadway ahead in overtaking a slower vehicle from the rear. It permits of a backward view of the road in making a turn to the left or completely around. The convenience of being able to enter or leave the sidewalk instead of being compelled to alight in the street or break police regulations by driving up on the wrong side of the street, is obvious.

The absence of levers on the outside of the body enhances the beauty of the Owen's lines.. The inconvenience of reaching over the side of the body to get at the levers, a feature that mars nearly all high front door and "torpedo" types of cars, is absent in the Owen.

**DEALERS** Now is the time for progressive dealers to secure some of the best territory and to take advantages of the big national advertising campaign that this company has been vigorously pushing in the highest grade publications. Owen demonstrating cars in charge of factory representatives are covering the country. We shall be glad to arrange for a demonstration of the Owen in YOUR territory. Write us at once.

OWEN MOTOR CAR COMPANY

1620 E. Grand Boulevard, DETROIT, MICH.




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# Your Impression of the Premier Must Now Become a Positive Conviction

List of Cars which have competed in one or more of the last four Glidden Tours and have yielded precedence to the superiority of the

## PREMIER

**The Proven Car**

| | |
|---|---|
| Peerless | Shoemaker |
| Packard | Autocar |
| Columbia | Chalmers-Detroit |
| Rainier | Walter |
| Lozier | Meteor |
| Stoddard-Dayton | Acme |
| Mitchell | Franklin |
| Apperson | Marmon |
| Thomas-Detroit | Oakland |
| Aerocar | Oldsmobile |
| Berliet | Studebaker |
| Haynes | Jewel |
| White | Glide |
| Gaeth | Midland |
| Royal Tourist | Cole |
| Thomas-Flyer | Cartercar |
| Welch | Parry |
| Reo | Ohio |
| Pungs-Finch | Pennsylvania |
| Maxwell | Cino |

In each of the three previous Glidden Tours the Premier has finished with a perfect score, and the average showing of the Premiers in any three of the four, or all four, has not been equaled by any car in the list shown herewith.

The Premier is the only make competing for the Glidden trophy in any three of the last four tours, or all four of them, which has not lost a car and has finished on schedule time with every car they started.



Glidden Trophy.

Even tho' you drive another car you have no doubt been conscious, for several years, that the Premier makes strong claims upon your consideration. As a seeker after the best you must necessarily take cognizance, therefore, of this fourth successive Glidden triumph. It offers the only evidence available which will enable you to choose between the few cars of a highest class.

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MacDonald and Campbell Trophy.

There are only two means by which you can definitely establish the worth and value of a motor car—the propriety of the price you pay.

One is the behavior of the car, in the hands of a great many owners, over a period of years.

The other is the degree of efficiency it reveals in contests of a continuously trying character, like the Glidden tour—reliability contests automatically grade motor cars.

Judged by these two standards—and, we repeat, no others are available—the Premier actually obtrudes itself upon your attention in a way that will not brook refusal.

Its supremacy on the first score is by the unique fact that 84% of those who have purchased Premiers in the past three years are Premier owners today.

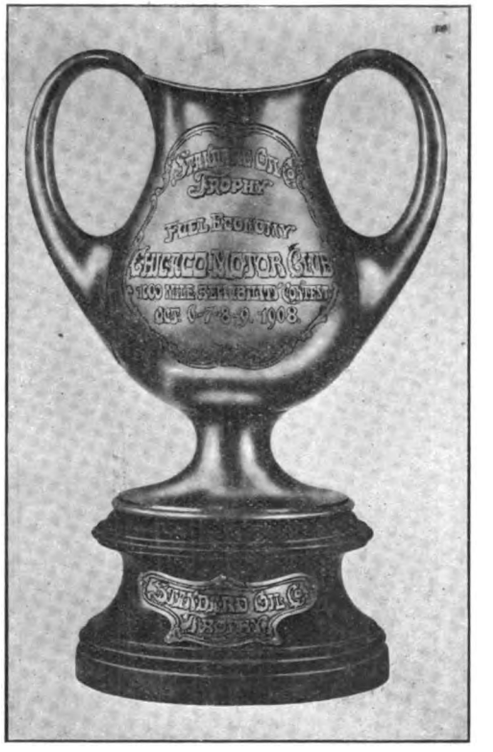
# PREMIER

## The Proven Car

## Winner of the Glidden Tour

The 1910 Glidden tour searched out the weaknesses and omissions of every car entered. It incapacitated every official and non-contesting car before the tour was half finished, in spite of the fact that they were permitted to make repairs and replacements and adjustments at will.

Abandoning these disabled cars, officials of the tour, including the referee, pacemaker, noon checker and Dai Lewis, pilot, with his bags of confetti, took refuge in the Premier, which carried some of them on ten of the sixteen running days.




Standard Oil Trophy.

As a matter of fact, this, the 1910 Glidden tour won by the Premier, was beset with road conditions so desperate and abnormal that they actually asked the miraculous and almost impossible of the entrants.

Out of this terrific 1910 ordeal as in the tours of 1907, 1908 and 1909, the Premier emerged untouched by tool and unaided by repair, with a trifling penalty imposed for attention to the fan belt only, and the renewal of water.

It was the only car traveling on the maximum schedule, which reached every control throughout the tour on time—in spite of the "excess freight" it carried in the shape of Glidden tour officials.

There is a widespread and growing disposition to assign the Premier a position of precedence over all other American cars without regard to price. This is due to a spreading belief that a car must prove its worth by the way it measures up with other cars in reliability contests, and in the esteem of its owners. The Premier, in that respect absolutely dominates the situation. And that suggests the thought—what car has earned the right to be valued above the Premier? Study the list shown above.

**PREMIER**
**Motor Manufacturing Company**
**Indianapolis, Ind.**

# PREMIER





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The Overland

# Some Overland Extravagance

The Overland

**We have told you about our economies—now let us deal with some counter extravagance. For there is many a way in which we spend more than good engineers deem necessary. Judge for yourself the advantage.**

Every important material which enters into an Overland is the best that we know for the purpose.

Many a part could be made of cheaper material, and nine times in ten it would serve equally well. But we insist on the best that any price can buy, simply as a margin of safety.

This is not true of materials used merely for show. There we employ various grades. So our cheapest cars lack some of the trappings—some of the finish—found in our costlier cars.

But every Overland, in its important parts, is as good as men know how to make it. Were you willing to pay us twice the price we could give you nothing better.

## 1,000 Inspections

We have a small army of highly paid experts who do nothing but inspect Overland parts and material. The various parts of each Overland car are subjected to more than a thousand inspections.

Each material is inspected, then each separate part. Then each combination of parts is inspected.

Then each completed car—in the hands of an expert—is given at least two road tests, over rough roads and hills.

We are told that the Overland is inspected and tested better than any other car in the world. We are told that we waste quite a neat sum per car by what is called over-exactness.

But we avoid mistakes. If an error occurs it is always corrected before the car goes to its owner. Now the Overland has a reputation—as wide as America—for being a trouble-proof car.

## Other Extremes

Each Overland crank shaft, before being attached to the engine, is revolved six thousand times in its bearings. Thus the bearings are ground into each other. They are fitted in the only way which gives them absolute smoothness.

Then each engine is run, under its own power, for 48 hours before it goes into the car. That is why an Overland never needs breaking in. It runs smoothly, easily, quietly right from the start.

We employ the direct drive and the unit transmission—all in a dust-proof case. We employ the five-bearing crank shaft used in all the costliest cars. Some economical makers use only two bearings on the lower-powered cars.

The four cylinders are all cast separately, even in our cheapest car. Some makers save much by casting them together.

So in every part. There is no skimping on materials—no economizing in the form of construction. Nor do we employ any piece work on Overlands. Every workman takes his time.

As a result, each Overland car—on the average—sells four others like it.

## Overland Prices

A 25-horsepower Overland sells this year for $1,000. It has a 102-inch wheel base—a possible speed of 50 miles an hour.

A 40-horsepower Overland, with single rumble seat, sells for $1,250. The wheel base is 112 inches. Every price includes gas lamps and magneto.

So with every model. The man who knows cars is always amazed when he sees what the Overland gives for the money.

But remember this: There are 275 makers of automobiles. And their average production in a whole year is less than the Overland's output for four days. To the average maker, the Overland facilities are utterly out of the question.

If you will mail us this coupon we will send you pictures of all the Overland cars. We will give you all of the prices—tell you all the facts. Please cut it out—now before you forget it—and mail it to us today.

We have dealers in 800 towns.

(M-63)

**The Willys-Overland Company**
**Toledo, Ohio**

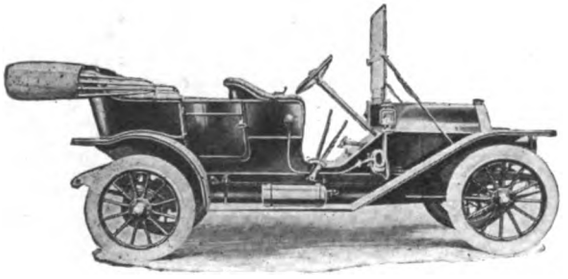
*Send me the facts about*

*Passenger Cars* ☐ *Delivery Cars* ☐

*The Marion-Overlands* ☐

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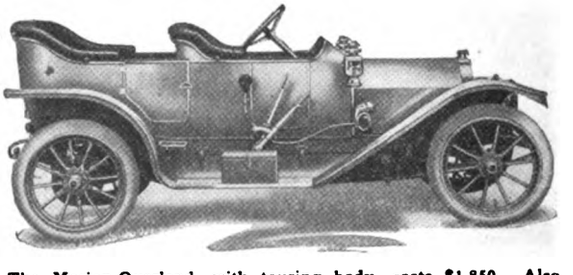
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Other Overland models cost $1,300, $1,400 and $1,500, according to style of body, etc.

The Overland

Licensed Under Selden Patent



The Marion-Overland, with touring body, costs $1,850. Also made as racing roadster, as town car and with torpedo body.

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THE MOTOR WORLD

Volume XXIV. New York, U. S. A., Thursday, July 14, 1910. No. 2

## ESCAPING VELIE'S DAMAGE SUIT

### Remaining Defendants Block Present Action—Kopmeier Demurrer Sustained —Makers Invoke a Writ.

By lively wriggling the defendants in the $500,000 damage suit brought by the Velie Motor Vehicle Co., of Moline, Ill., in the Milwaukee courts continue to "get from under."

Twenty-one of the 25 defendant members of the Association of Licensed Automobile Manufacturers succeeded on June 11 in being dismissed as defendants, on the ground of want of jurisdiction, in that their Milwaukee agents, who were served, were not the legal representatives of the company. The remaining four who were held, including the Pierce-Arrow Motor Car Co., the Pope Mfg. Co., the Locomobile Co. of America, and the Chalmers Motor Co., have secured a writ from the supreme court of Wisconsin which prevents the circuit court from assuming jurisdiction. Topping this, the Kopmeier Motor Car Co., of Milwaukee, which the Velie company sued as an agent conspiring with the Selden forces, has been sustained in a demurrer of the charges brought against it, so that as the situation now stands, not a defendant is left for present attack under the original suit.

Judge Eschweiler on the 3rd inst. sustained the Kopmeier demurrer to the Velie complaint and all the contentions of the Kopmeier attorney were granted by the court's order, in addition to which the attorney, Henry V. Kane, was complimented by the court for the citations of law presented. The Kopmeier company is relieved of further responsibility in the case unless the Velie company brings new or amended action.

The four licensed motor car manufacturers who were held by Judge Turner of the circuit court, took an extraordinary method for blocking the complainant. They invoked a writ of prohibition from the supreme court, with the result that the circuit court cannot have the case until the supreme court decides whether or not the defendants, as foreign corporations, properly can be placed in the jurisdiction of the circuit court. The stay of proceedings has been granted until September 6th in the supreme court.

### Nebraska Company Swells to a Million.

The Jonz Auto Co., of Beatrice, Neb., which two years ago was an exhibitor at The Chicago show with a two-cycle air-cooled type of machine, but which heretofore has produced cars only in a small way, has been expanded to a capitalization of $1,000,000 and is to be known as the American Automobile Mfg. Co. It is claimed that $100,000 of the stock has been subscribed for by Chicago and Kansas City men, and plans are announced for the establishment of factories in Kansas City and Louisville, Ky.

### Imports Fall Off Nearly 50 Per Cent.

That the importation of foreign motor cars for American use is a decaying activity strikingly is shown in the import figures for May, these being only about half of what the imports were for the same month a year ago. During May, 1910, there were imported 83 cars, having a value of $173,344, while in May of last year the imported cars numbered 193 and were valued at $301,971. While the aggregate value of the cars imported is smaller their average is much greater.

### Wagon Makers to Build Convertibles.

Haller Bros., of Louisville, Ky., carriage and wagon makers, are preparing a portion of their plant for automobile manufacture and intend to commence building cars next month. George Haller, of the firm, has completed a vehicle having a two cylinder opposed, 14 horsepower, air cooled motor, as a prototype of the convertible pleasure and business machine that the factory is to produce. The rigs will be of the low wheel, solid tire, motor buggy order.

## MATHESON ASKS FOR RECEIVERS

### Step Taken to Protect the Business—Receivers to Borrow Money—Claim Company is Solvent.

As a protection for the business during what is described as a purely temporary financial embarrassment, the Matheson Motor Car Co., of Wilkes-Barre, Pa., has applied to the courts for a receivership. Three receivers have been appointed, these being Colonel Asher Miner, the president of the company; W. C. Shepherd, a Matheson director and a member of W. H. Shepherd & Co., one of the biggest contracting firms in Wilkes-Barre; and Harold L. Pope, the designer and engineer for the Matheson company. On Monday, 11th inst., the receivers obtained permission from the court to borrow $50,000 in order to pay employes and purchase materials necessary for the completion of the cars now in process of construction. As soon as the loan is secured the company will resume work.

It is claimed that the company is wholly solvent, the assets exceeding the liabilities by about $260,000, the former being placed at $1,042,500, of which $600,000 is represented by cars and parts, and the latter at $780,000. Delays in the receipt of materials, the checking of deliveries on dealers' contracts, and the impatience of a few of the creditors are assigned as the reasons for the company's taking the receivership step.

In speaking for the company, C. W. Matheson, president of the Matheson Automobile Co., of New York City, which distributes the Matheson product, explains the situation as follows:

"The action of the Matheson Motor Car Co. in applying to the courts of Luzerne county, Pa., for a receivership is entirely friendly, and, in reality, spells a step in the direction of an expansion of the manufacturing company. The immediate cause is the action of a few of the creditors who

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are pressing their claims to the detriment of the company. For the conservation of the interests of all, the receivership was decided upon as a friendly protection.

"The indirect cause leading up to the action was the delay in the shipment of materials to the factory, the cold, wet spring weather, and the general slump in the stock market, which affected deliveries on dealers' contracts for several hundred cars. If the dealers had not been restrained, because of these conditions, from taking the cars contracted for, the necessity for this action might not have arisen. It is expected that the receivership will be only temporary. Plans practically are completed for a larger factory output than ever before, and the manufacturing company will doubtless emerge from this passing storm in a more sound and healthy condition."

Through the loyal support given it by Wilkes-Barre stockholders, the company has been successful in weathering previous financial storms. It was brought from Holyoke, Mass., in 1905, through the interest of the Wilkes-Barre board of trade. The company agreed to raise $115,000 in cash provided the Wilkes-Barre investors would put up $85,000 in the venture. Early in 1906 a contract for the entire output of the factory was made with the Matheson Company of New York, the principal stockholders of which were Henry U. Palmer and Charles A. Singer, who paid $80,000 into the Wilkes-Barre company.

After having placed a contract for 250 cars for 1908, the New York company had a disagreement with the manufacturing company in the fall of 1907. It changed its name to the Palmer & Singer Mfg. Co. and subsequently repudiated the Matheson contract. In consequence of the difficulties in which the Wilkes-Barre company was placed by the cancelation of the contract, a creditors' committee was formed, the creditors agreeing to take half cash and half in bonds, $154,000 worth of which were issued. At a meeting in Col Miner's office, nine Wilkes-Barreans contributed $50,000 to keep the company going.

The Matheson Automobile Co., of New York City, was formed in August, 1908, with $150,000 cash capital, to act as selling agent for the manufacturing company. Col. Miner was made president of the latter in November, 1908, and C. W. Matheson became president of the former. The manufacturing company has $364,880 worth of preferred stock outstanding and $154,200 in bonds, the latter held entirely by creditors who accepted them following the difficulties with Palmer & Singer.

### Tulsa Makers Take a Factory.

The Tulsa Auto Co., recently organized in Tulsa, Okla., has taken a factory site and is arranging for the completion of its plant by September. The first building will be of brick, two stories high, 150 x 50 feet.

## FOUND ONE SENSIBLE CUSTOMER

### Parts Maker Gets a Surprise from a Budding Car Manufacturer—Latter's Caution Commended.

Not only are many of the established motor car makers, through their press agents, issuing almost impossible production figures as to their present and prospective outputs, but not a few of the fledgling companies, which are preparing to put cars on the market, are affected by inflated production ideas, and while they may not always actually undertake to manufacture as many cars as they announce for their probable production during the first year, they nevertheless often bite off considerably more than they can chew. Makers of parts for cars of the "assembled" variety have become cautious in the case of new concerns that talk big production figures for their first year, as the parts makers are among those who suffer most when the new companies get into difficulties through attempting greater outputs than their factory and financial capacity will allow. An instance of how conservatism is welcomed by the parts makers is being narrated in Detroit.

An officer of one of the newly formed companies called on a maker of automobile parts, with a view to contracting for the new company's requirements. He was asked as to the number of cars for which parts would be required.

"Ten," replied the intending purchaser.

"Ten!" exclaimed the parts maker. Then rising from his chair and grasping the man heartily by the hand, he declared: "I don't know you at all, but you can have anything you want without my asking you another question as to your standing or responsibility. Anyone who has the good judgment to go so carefully as that needs no investigation by me. I am used to having new automobile manufacturers come in here and order from one to many thousands of parts, and our storehouse is full of parts which cannot be taken by the firms who ordered them. I wish you every success, and I believe that with the judgment you are showing your company will prosper."

### Klaxon Acts Against Philadelphians.

After "cleaning up" the New York City firms who have been offering Klaxon and Klaxonet horns at less than the established prices, the Lovell-McConnell Mfg. Co., of Newark, N. J., has conducted an investigation of the retail market in Philadelphia, Pa., with the result that it has secured injunctions against two Quaker City firms, and has listed two more as "objectionable" under the terms of its selling license, so that they are not permitted to handle the goods. Nineteen establishments were visited, and all were found to be maintaining the Klaxon prices except the Manufacturers' Supplies Co. and the Auto Accessories Co., against whom injunctions were issued, while the Keim Supply Co. and the National Auto Supply Co. were quoting lower prices than list, but were not making any actual deliveries of the horns. In lieu of injunctions against the latter two, they have been designated as "objectionable" to the Klaxon makers.

### Economy Passes into New Hands.

The Economy Motor Car Co., of Joliet, Ind., has passed from Joliet hands to Chicago interests. Stockholders in Joliet, headed by Col. John Lambert, who was president of the concern, and Dr. J. C. Flowers, have disposed of their holdings to a syndicate of which William H. Everett was the authorized representative. The plant will be run without radical changes for the present.

### Bower to Move from Dayton to Detroit.

The Bower Roller Bearing Co., of Dayton, O., has decided to remove to Detroit, Mich., and steps have been taken toward the erection of a new factory for the company in the latter city, to the ready by fall. The concern has reincorporated, this time under Michigan laws, with $250,000 capital, and a number of Detroit men have become interested in it financially.

### Detroit Office for Taft-Peirce.

The Taft-Peirce Mfg. Co., of Woonsocket, R. I., is opening an office in Detroit, Mich., at 1311 Majestic building, for the purpose of better looking after its Middle West business in the designing and construction of jigs, fixtures, gauges and special tools. A corps of competent mechanical engineers will be located at the Detroit office.

### Clover Leaf to Produce Parts.

By the combining of the Clover Leaf Machine Co. and the Yuester Axle and Transmission Co., both of South Bend, Ind., a new concern has been formed, which will be known as the Clover Leaf and Axle Co. It will make parts and accessories for motor cars, and will occupy a factory having 22,000 square feet of floor space.

### South Carolinans Start a Factory.

Chester, S. C., is to have an automobile factory, D. P. Crosby and F. M. Hough, of that place, having formed a partnership under the name of the Hough Automobile Co., for the manufacture of cars. A foundry building on Gadsden street and owned by Crosby will be utilized as the plant.

### To Manufacture Starrs in Wisconsin.

The Starr Motor Car Co., of Minneapolis, Minn., is to build a factory in Downing, Wis., for the manufacture of Starr cars. F. W. Starr will have charge of the factory, but the main offices of the concern will remain in Minenapolis.

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## INSTALMENT LURE IS THEIR BAIT

### Offer of Automobiles in Monthly Payments Draws Names of People with Spare Cash—A Novel Scheme.

New use has been found for the lure that lies in the offer to sell automobiles on instalments. In the past the bait has been highly successful as a means for separating victims from their money by the simple process of keeping the first payment and not sending the car, as in the case of the Terminal Auto Co., of New York City, which the Motor World exposed, and that of a Detroit dealer who ran foul of the Federal authorities. But a new refinement in the game has been developed, apparently, by which the money separating process is less crude and less liable to unpleasant legal consequences.

Several of the New York City newspapers not long ago contained an advertisement offering "Automobiles Sold on Monthly Payments," the text of the offer being as follows:

"We will sell to responsible people any American made machine, new, at regular price, immediate delivery when possible, to be paid for in monthly installments covering from four to eight months time. No objectionable conditions, straight sale, no fees of any nature. Terms furnished on request." The advertisement was signed "Associated Owners," and gave only a post-office box address.

Inasmuch as most of the cars on the market cost $800 or more, it will be seen that anyone answering the advertisement in good faith might be expected to be prepared to pay at least $100 per month if taking the maximum instalment period of eight months, and at least $200 a month on the four months basis. Strangely enough, out of several letters sent by different people in answer to the advertisement, not one received any reply on the automobile proposition. There did come, however, a letter from an alleged firm of stock and bond brokers, with a tempting proposition for beating Wall street and offering to show the way by which their clients might graduate from the "lambs" class to that of prosperous "wolves," making small capital, "under judicious direction in the stock market, yield a fortune."

One of these letters was sent to an address which the person answering the automobile advertisement never before had given, proving to his mind that the brokers' letter was connected closely with the advertisement, as only through the answer to the motor car offer could it be known that mail would reach him at that particular address. Those who answered the advertisement would appear, therefore, merely to be supplying a choice list of names of persons having sufficient ready money saved or a sufficient income to make it worth while to try and get it away.

### Becomes First Voluntary Bankrupt.

First honors for taking advantage of the recent amendments to the bankruptcy laws, which permit corporations to go into voluntary bankruptcy, fall to an automobile concern. Heretofore only persons of the flesh could become voluntary bankrupts, but the bankruptcy provisions now have been changed so that artificial persons, created by law and known as corporations, also may enjoy the benefits of involuntary bankruptcy. The New Amsterdam Motor Co., of New York City, doing an agency, rental and garage business, was a petitioner under the act on the 7th inst. The company stands in the light of making a very thorough job of its bankruptcy, as a petition in involuntary bankruptcy had been filed against it some time before by creditors. The liabilities are $52,226, of which $20,000 is in two claims for damages which have not been liquidated, and the nominal assets are $18,329, consisting of materials and office furniture, $1,738; machines, $2,144; accounts, $3,401; cash, $346, and Crawford automobiles, $10,700, subject to liens under conditional bills of sale and chattel mortgage. Morgan & Wright has issued an execution to the sheriff for $1,839, and a levy has been made on some of the property of the corporation.

### Chadwick to Remain in Pottstown.

The Chadwick Engineering Co., of Pottstown, Pa., which has been tentatively negotiating with other cities as to what inducements the latter would offer in order to get the company to move, is to remain in Pottstown, as the local Commercial Club, aroused to a fear that the plant might be taken from the city, has presented that company with a new $70,000 factory. The old Chadwick plant is being taken by the Light Mfg. and Foundry Co., of Pottstown.

### Midland License to Midland.

As the maker of the Midland car, which is now in the licensed ranks, the Midland Motor Co., of Moline, Ill., seeks a correction of a slip that was made in giving the manufacturer's name as the Moline Motor Co. It is the Midland Motor Co. which received the Selden license that makes the Midland car a licensed product. The Moline Motor Car Co., which makes the Moline Car, already was a licensee.

### Galloway Obtains Control of Mason.

The controlling interest in the Mason Motor Car Co., of Waterloo, Ia., has been bought by W. Galloway, a manufacturer of that city. The company moved from Des Moines to Waterloo last year, following its purchase by Senator F. L. Maytag, whose holdings Galloway is understood now to have acquired.

## "PETE" IS RETIRED FROM M. A. M.

### Wainwright Succeeds Him as Secretary and Barnes Takes His Directorship—More Members Added.

Despite the fact that "Pete, the Hyatt man," as Peter S. Steenstrup at one time was pleased to be called, is now an agent for Columbia cars in Seattle, and that Columbia cars are made by a constituent company of the United States Motor Co., and that the United States Motor Co. interests have domination over the Westchester Appliance Co., and that the Westchester company is a member of the Motor and Accessory Manufacturers—despite all this elaborate chain which might give him a possible ground for retaining the secretaryship and a directorship of the association, he nevertheless has retired. His de facto retirement took place last April, when he left the Hyatt Roller Bearing Co., of Harrison, N. J., but he hopefully retained his titles until the quarterly meeting of the Motor and Accessory Manufacturers on Friday last, 8th inst., when L. M. Wainwright, of the Diamond Chain & Mfg. Co., Indianapolis, Ind., succeeded him as secretary, and Claire L. Barnes, of the Billings & Spencer Co., Hartford, Conn., took his place on the board of directors.

In addition to the eight companies named in last week's Motor World, seven other concerns were added to the association's roll of members, bringing the total membership to 193. The report of the treasurer indicated that the association is in an exceedingly healthy financial condition. The seven additional companies taken into membership, are: Western Motor Co., Logansport, Ind., gasolene motors, gray iron castings, etc.; Electric Welding Products Co., Cleveland, O., bolts, valves, transmission shafts, etc.; Hercules Electric Co., Indinapolis, Ind., magnetos; Sparks-Withington Co., Jackson, Mich., pressed steel products and automobile parts; Bosch Magneto Co., New York City, magnetos and ignition devices; Brown-Lipe-Chapin Co., Syracuse, N. Y., differential gears, etc.; Parker Motor Co., Hartford, Conn., gasolene engines.

### Bauer to Build Steel Bodies.

The Bauer Steel Body Co. has been organized in Detroit, Mich., to manufacture steel bodies, tanks and other parts for motor cars. The factory, which is to be in operation by August, is at Warren avenue and 15th street, while temporary offices have been taken at 29 Rowland building. The concern is capitalized at $20,000 and its officers are: Charles W. Rosenberg, president; M. C. Bauer, vice-president and superintendent; Milton C. Hirschfield, secretary and treasurer.

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**The Week's Incorporations.**

Kalamazoo, Mich.—Independent Garage, under Michigan laws, with $2,000 capital.

Detroit, Mich.—General Auto & Tire Co., under Michigan laws, with $10,000 capital.

Lansing, Mich.—Wolverine Auto Club, under Michigan laws, no capital. Corporators—H. J. Power, C. F. Gilmore, H. C. Mills.

St. Louis, Mo.—Overland Motor Car Co., under Missouri laws, with $10,000 capital. Corporators—J. H. Harrington, T. B. Funk, H. R. Harrington.

Fort Wayne, Ind.—L. C. S. Motor Co., under Indiana laws, with $100,000 capital. Corporators—Charles LaDue, Jeremiah Carmer, C. O. Snyder.

Chicago, Ill.—American Taximeter Co., under New York laws, with $200,000 capital (capital in Illinois, $15,000); to operate taxicab service in Chicago.

Chicago, Ill.—VanDyke Motor Car Co., under Michigan laws (in Detroit) to be located in Illinois, with $1,000,000 capital. capital in Illinois, $5,000.

Dover, Del.—Co-Operative Trading Syndicate, under Delaware laws, with $100,000 capital; to manufacture, construct, maintain and operate automobiles

Chicago, Ill.—Chicago Commercial Car Co., under Illinois laws, with $2,500 capital; to deal in automobiles. Corporators—W. H. Forsythe, L. E. Ring, H. A. Fleig.

Minneapolis, Minn.—Minneapolis Regal Auto Co., under Minnesota laws, with $250,000 capital. Corporators—J. P. McGuire, E. C. Noyes and others.

Wilmington, Del.—Moore Electrical & Automobile Co., under Delaware laws; with $50,000 capital. Corporators—Rose E. Moore, Edward R. Pusey, Enoch Moore, Jr.

Indianapolis, Ind.—American Headlight Co., under Indiana laws, with $50,000 capital; to manufacture headlights. Corporators—C. S. Stone, C. N. Elliott, H. B. Gates.

Detroit, Mich.—General Auto & Tire Co., under Michigan laws, with $10,000 capital Corporators—T. H. Henderson, W. H. Lindabury, Rufus Monroe, G. J. Bessenger, D. B. Neal.

Birmingham, Ala.—Drennen Motor Car Co., under Alabama laws, with $5,000 capital; to do general automobile business. Corporators—D. M. Drennen, F. M. Drennen, H. A. Drennen.

Chicago, Ill.—Chicago Jack & Supply Co., under Illinois laws, with $14,000 capital; to deal in automobiles and accessories. Corporators—E. L. Robinson, A. E. V. Wright, J. M. Timmons.

Columbia, S. C.—Roddey Automobile Co., under South Carolina laws, with $10,000 capital; to deal in automobiles, etc., and do general garage work. Corporators—J. R. Roddey, J. J. Cain.

Houston, Tex.—The Auto Co., under Texas laws, with $10,000 capital; to conduct a general automobile and garage business. Corporators—H. T. D. Wilson, Harry Holmes, T. E. O'Neill.

St. Louis, Mo.—Banner Automobile Co., under Missouri laws, with $2,000 capital; to manufacture and deal in automobiles and supplies. Corporators—H. F. Cartwright, R. E. Gardner, E. L. Roninger.

New York City, N. Y.—American Pedal Co., under New York laws, with $10,000 capital; to deal in motors, engines, machines, etc. Corporators—Henry E. Cornwell, M. F. Luckenbill and others.

Oklahoma City, Okla.—Oklahoma Vulcanizing Co., under Oklahoma laws, with $1,300 capital; to do general automobile and tire repair business. Corporators—J. B. Frank, Sam Fuesler, J. B. Fuesler.

Rochester, N. Y.—Empire State General Vehicle Co., under New York laws, with $100,000 capital; to manufacture vehicles and appliances. Corporators—G. A. Hallister, R. M. Searle, J. T. Hutchings.

New York City, N. Y.—Munsing Motor Car Co., under New York laws, with $500,000 capital; to manufacture automobiles, motor boats, etc. Corporators—W. H. Bursmith, M. T. Westcott, F. W. Mitchell.

Lancaster, N. Y.—Lancaster Motor Co., under New York laws, with $2,000 capital; to manufacture motors, automobiles, engines and accessories. Corporators—George A. Davie, Frederick Howard, Odell R. Blair.

Dover, Del.—Club Car Co., under Delaware laws, with $750,000 capital; to deal in automobiles and equipment of all kinds. Corporators—Ralph Buell, C. H. Stanton, Geo. L. Lewis, S. V. Morris, John H. McCrayon.

Newark, N. J.—East Orange Automobile & Machine Co., under New Jersey laws, with $10,000 capital, $3,000 of which is paid in; to manufacture, deal in and store automobiles. Corporators—L. C. Stringham, F. L. Barr, Henry Seib.

Pittsburg, Pa.—Pneumatic Tubeless Tire Filler Co., under West Virginia laws, with $250,000 capital; to manufacture tire fillers. Corporators—C. A. Painter, E. W. Rolfe, Wm. S. Hackett; Norwood Johnson, E. J. Kent, all of Pittsburg.

Buffalo, N. Y.—Glidden Garage Co., under New York laws, with $10,000 capital; to deal in and repair automobiles, to rent vehicles and do general accessories and supply business. Corporators—Oscar Meyer, Bessie Meyer, Mary Meyer.

New York City, N. Y.—Phoenix Sight Seeing Co., under New York laws, with $25,000 capital; to manufacture passenger vehicles propelled by motors, etc. Corporators—A. Shapiro, S. Goodman, H. Goodman, all of Manhattan, N. Y.

Elizabeth, N. J.—Vandewater & Co., under New Jersey laws, with $100,000 capital; to manufacture internal combustion engines, steam engines, automobiles, aeroplanes, etc. Corporators—J. Correja, F. C. Vandewater, E. Vandewater, S. R. Vandewater.

Charleston, W. Va.—Remington Standard Motor Co., under West Virginia laws, with $1,000,000 capital; to manufacture automobiles and aeroplanes. Corporators—Philo Remington, Eli Remington, DeWitt Burne, George A. Grounds, and several bankers of Charlestown.

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**Changes Among Prominent Tradesmen.**

R. M. McCormack has been appointed manager of the Philadelphia branch of the Regal Motor Car Co., of Detroit, Mich. He has been in the company's sales department for about a year.

Harry Fosdick has resigned from the Hol-Tan Co., of New York City, of which he has been the vice-president and treasurer, and which handles the Lancia car in America. He announces his intention for the immediate future of "going fishing—but not for a job."

Everett S. Benson, who for many years was identified with the Hartford Rubber Works Co., of Hartford, Conn., has returned to that company as its secretary, after having been secretary and treasurer of the G & J Tire Co., of Indianapolis, Ind., in the interim. He assumed his duties in Hartford on the 1st inst.

Harry C. Stutz has resigned as factory manager and engineer for the Marion Motor Car Co., of Indianapolis, Ind., to accept the position of president and general manager of the recently formed Stutz Auto Parts Co., of Indianapolis, which has its offices in the Industrial building. The new company is making Stutz Gear systems and transmissions.

R. W. Daniels has resigned as manager of the Studebaker branch in Boston, Mass., and the management of both the Studebaker and the E-M-F branch in the Hub has been given to Charles Addison Malley, who with Burleigh N. Crockett established the Boston agency for the E-M-F. Malley will have charge of the wholesale end of the work, while Crockett will attend to retail sales in Boston and its vicinity, and both salesrooms on Bolston street will be retained for the present.

Albert Bennett, sales manager of the Colt-Stratton Co., of New York City, in addition to handling the Cole car in the East for the Cole Motor Car Co., of Indianapolis, Ind., has taken charge of the eastern interests of the Henderson Motor Sales Co., of Indianapolis, and will supervise the sales of the Westcott "40," which is manufactured by the Westcott Motor Car Co., of Richmond, Ind. The Westcott cars will be distributed in New York state and New England by the recently organized Dunlap-Taylor Motor Co., of New York City.

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**In the Retail World.**

Eugene Reid has leased the old Central garage on Pike alley, Newark, N. J., and renamed it Pullman Garage.

The Klemme Auto Co., of Davenport, Ia., has absorbed the Brandenburg Auto Co., 106 Brady street, the same city.

A two-story garage is being built for G. Pushman at 131 La Salle street, Chicago, Ill. It will be 75 x 170 feet, of brick, and will cost $30,000.

Raymond Duntz is building a new garage at the corner of State and Robinson streets, Schenectady, N. Y. It will be 33 x 100 feet and cost about $4,000.

A. J. Eckblad, Topeka, Kan., is equipping an automobile tire repair and vulcanizing shop at 914 Kansas avenue. Roy Eiffert will be in charge.

Benjamin Wolf is building a four-story garage, 120 x 106 feet, at the southwest corner of 23rd and Market street, Philadelphia, Pa. It will cost $75,000.

The White Star Taxicab Co., of Chicago, Ill., is erecting a garage and repair shop at 842-844 East 40th street in the Windy City. The building will cost $18,000.

The Bailey Motor Co. is the style under which a new concern has invaded Hazelton, Pa. The garage will be located on the site of the old Markle Bank building.

H. G. and R. G. Oliver, formerly of Holyoke, Mass., have opened an automobile supply store in Pittsburg, Pa. They will do business under the style Oliver Brothers.

The Lake Motor Car Co., Kansas City, Mo., has moved from 3320-3322 Main street to 34th street and Broadway. The company will continue to handle Stearns and Premier cars.

John and Henry Kuhns have formed a partnership under the style Kuhns Bros. and opened a garage in Youngstown, Ohio. They are located at the corner of Front and Phelps streets.

Work has been started on the new four-story garage to be occupied by the Freeland Brothers-Ashley Co., and the Apperson sales agency, at 12th and Farnam streets, Omaha, Neb.

Lancia cars will be featured in the new garage and salesrooms opened by Albert De Dryer, under the style the Franco-American Auto Co., at 10 Green street, Jamaica Plain, Mass.

William Caskey, owner of the automobile garage on Juliana street, near Sixth street, Parkersburg, W. Va., has sold out to Pratt and Lacy, of Pittsburg; they will continue the business.

Charles E. Myers, of Washington, D. C., has opened a new salesroom at 1429 L street, where he will display Elmore cars. The building is three stories in height and is said to have cost $50,000.

The Kelly Automobile Co., Youngstown, O., will open its new garage at 221 Chapel place about August 1st; the building is fireproof, of concrete, and will serve as a background for Henry cars.

The Owners' Motor Co., of Atlanta, Ga., is the style of a new concern which has established salesrooms and a garage at 349 Peachtree street, in the Southern city. Packard cars will be handled.

Oliver J. and Robert Hatcher are constructing an automobile garage in Adams street, between Seventh and Eighth streets, Springfield, Ill. The building will be four stories in height and will cost $20,000.

Hatboro, Pa., is to have its first garage. G. C. Seidel is building it on North Broad street, near the Logan station. The structure will be one story in height, 50 x 80 feet, and will be known as the Logan Garage.

Under the style the Radcliff Motor Car Co., a new concern has opened up in Louisville, Ky. Its salesrooms are at 916 South Third avenue, where Stevens-Duryea cars will be featured. C. A. Radcliff is the manager.

Two alarms were necessary to control an ugly blaze which gutted the big establishment of the Portland Automobile Co., Portland, Me., last week. M. B. Gay, manager of the garage, fixed his loss at about $2,500.

The Archey-Atkins Co. is the style of a new concern which just has been formed at Indianapolis, Ind. Permanent headquarters of the new concern are at 425 North Meridian street, where Pierce-Arrows will be handled.

Another addition to the large number of garages in Louisville, Ky., was made last week, when the Hite Bowman Co. opened its new place on Fourth avenue near Oak street. The structure is of brick and tile, measures 67 x 80 feet, and cost $9,000.

The Chicago Marion Co., which had been located on the north side of the City by the Lake, has found it necessary to move to more commodious quarters on "automobile row." The new building is three stories high and is located at 2400 Michigan avenue.

The good showing of the Moline cars in the Glidden tour was responsible for the forming of the Moline Sales Agency, 724 Wainwright building, St. Louis, Mo. H. P. Webb, Arthur Surridge and Walter von Steiger are the leading spirits of the new enterprise.

Damage amounting to over $1,500 resulted from a fire in the garage and repair shop of the Automobile & Vulcanizing Works, at the corner of 15th and Holmes streets, Kansas City, Mo. M. H. Norton, the owner, states that his stock was only partly insured.

The old foundry building on the east side of Broad street between Buttonwood and Hamilton streets, Philadelphia, Pa., will be remodeled into a large automobile garage at a cost of $20,000. The structure will measure 130 x 120 feet, and will be occupied by Martin E. Greenhouse.

The firm of Nute & Keena, Seattle (Wash.) agents for the packard cars, has been dissolved. J. T. Keena, junior member, bought out his partner's interest and will continue the business along the same lines. A. P. Nute has quit the automobile business to enter the lumber industry.

Making its own electric light and power by means of a powerful gasolene engine, the new garage of Beaver & Beaver in North Logan street, Lincoln, Ill., has been opened for business. An electric battery charging plant will be maintained in connection with the gasolene repair shop.

Selling second hand automobiles by photograph is to be the main feature of the Western Motor Car Co., which has established offices and a garage on South Jefferson street, Springfield, Mo. A. J. Leonard, formerly president of the Leonard Hardware Co., is the owner of the business.

Motor car dealers in Hutchinson, Kan., have organized as the Hutchinson Automobile Dealers' Association and are planning to give "the biggest automobile show at the Kansas state fair this fall that the state has ever seen." Edward S. Moore, of the Taylor Motor Co., heads the organization.

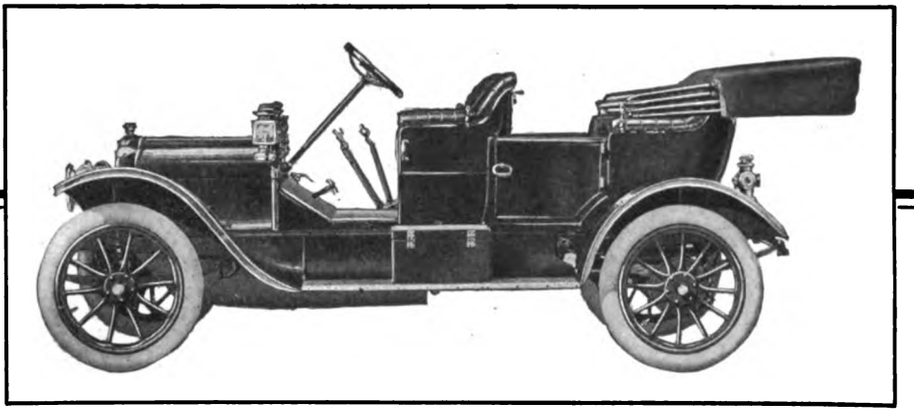
Fifteen automobiles were destroyed in the fire which occurred in the Pacific Garage, 172 Pacific street, Brooklyn, N. Y., on July 9th. Defective insulation of electric wires is given as the probable cause of the blaze which caused damages of about $75,000. The fire was one of the worst in Brooklyn in recent years.

T. R. Brader & Son is the style of the new firm which has bought out Wm. Cunningham's interest in the garage at Storm Lake, Ia. Cunningham, who is known as the first man to engage in the automobile business in Iowa, has moved to Oklahoma City, Okla., and will open an aeroplane factory and repair shop there.

George F. Reim and William R. Drummond have formed the Cadillac Co. of Omaha and opened a salesroom and garage at 2050 Farnam street, Omaha, Neb. Drummond is the owner and manager of the Drummond Carriage Co., at 18th and Farnam streets, which handles White cars. The new company will deal in Cadillac cars exclusively.

What is claimed to be the "most modern garage in the Northwest" just has been opened by the Pacific Motor Car Co., in Spokane, Wash., at the corner of First avenue and Maple street. The inner dimensions of the salesrooms are 40x40 feet, while a large garage and repair department are in the rear. The building is fireproof, electrically lighted, with tiled floors and all modern improvements.

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## The Use of the Clutch Brake.

It is gratifying to observe the increase in the number of clutch brakes applied to stock cars. While theoretically there should be no need for such an appliance, the fact remains that about ninety-nine clutches out of a hundred will "spin" under certain conditions instead of quickly coming to rest. The fact that the conditions which bring about the difficulty of clutch dragging arise not from faulty design so much as from abusive treatment is what emphasizes the importance of such a device.

No matter how carefully a clutch may be designed with a view to preserving its alignment at all times, preventing it from engaging at certain points and not in others, springing, bending or binding, the fact remains that careless operators will neglect to oil its bearings for long periods, that they will feed it an improper grade of oil now and then, and that they will neglect to give it due attention when it is found to be working improperly. The difficulty of clutch spinning, which is to say the indication that some sort of clutch brake is required, of course, is most noticeable with clutches such as those of the plain cone type, in which the live element possesses considerable inertia of its own. It may be said, however, that no form of clutch is absolutely free from the need of a braking device when liable to abuse.

The thing may be contrived so simply that it is rather surprising that car builders in general have been as backward as they have in adopting it as a standard feature. In most cases all that is required is a small spring-controlled pad so positioned that a collar attached to the slideable live member of the clutch will bear against it when the pedal is depressed. In other cases more elaborate mechanism is demanded, but even so, it can be of so light a nature and so simply constructed as to throw no very serious burden on the manufacturer's shoulders.

The advantage of the clutch brake is that it retards the clutch shaft sufficiently to be of very material assistance in changing gears. By slowing the first motion shaft before the gears which are about to be meshed are brought together, it permits the change to be made silently and without burring the ends of the teeth. Since the retarding effect is proportional to the amount of pressure exerted on the clutch pedal, it follows that the skilful driver may regulate it exactly to the requirements of the change; that is to say, that shifts from higher to lower speeds may be made much more quickly and easily with than without such a device. The most important argument in favor of the clutch brake, however, is that it relieves the ends of the gear teeth of considerable otherwise necessary strain at times when the clutch is not working properly. One look at the gears in an ancient and abused transmission usually is enough to furnish conviction that the clutch brake is a genuine necessity.

## Upholstery that Soils Clothing.

In this advanced stage of the industry it is strange that it should be necessary to call attention to the importance of equipping cars with upholstery of the sort which does not crock and which is not likely to catch and retain the dust. Nevertheless not a few complaints are being heard of cars in which this fault is quite pronounced. Either through carelessness or false economy in selecting the upholstering materials, or else as a result of the use of improper cleaning compounds in the garage, it happens that the light-colored clothing of passengers frequently bears unmistakable marks of the car at the end of a run.

It may be argued, of course, that motoring is more or less a dusty and dirty pastime, and that motorists invariably should go prepared for such contingencies. The growing use of machines of all types for about-town use, especially by ladies when shopping or calling, however, indicates the importance of giving due attention to this point. Whether in the upholstery itself, the dust covers for the cushions, the top dust cover or any other portion of the appointments of the tonneau, all leather should be chosen and finished with a view to preserving its flexibility and color without running any risk of smooching. The same consideration also should be given to the subject by garagemen who, through eagerness to take good care of the cars under their charge, occasionally permit their employes to use cleaning fluids which while quick acting in their immediate influence are injurious in their lasting effects, and above all tend to catch the dust.

## The Advance of the Commercial Car.

It must be evident even to the most casual observer that the use of the commercial vehicle has increased by leaps and bounds within the past six months. Those who are familiar with the workings of the automobile industry know that the growing prominence of the business motor car results in part because manufacturers and dealers are putting forth an amount of forceful and concerted effort such as never before has been seen in this line, and in part as a natural result of the long period of incubation which the germ of the commercial vehicle idea has undergone. But only a few of the better established makers and their sales representatives are in a position to judge of the real strength of the commercial vehicle situation at the moment. From such positive factors in the industry comes the assertion that the market is affording that most comforting token of assurance that could be desired; commercial vehicle users, after one or more years of trial service are increasing their equipments by substantial amounts.

By invoking the powers of advertising and the almost coercive influences of such newspaper publicity as the automobile trade

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always has had the more or less mysterious power to inspire it is possible to create a one-time market for almost anything under the heavens. Such a market may be quite as much a credit to creative salesmanship, the hypnotic suggestion of the printed and spoken word, as it is indicative of real value in the commodity offered. But when the demand begins to accelerate and the market manifests an inclination to repeat itself there is assurance that back of the "market motive force" is a recognized potential of necessity. It is such a demand that the commercial vehicle is beginning to invoke.

While in the minds of many observers the commercial branch of the industry still is regarded as being in its swaddling clothes, it cannot be denied that it has reached pretty lusty proportions. One thoughtful student of its progress avows that there are at present not far from twenty thousand commercial cars in use in this country, representing an investment of sixty million dollars in round numbers. In view of the present strength of the pleasure car, and of the acknowledged field for exploitation which transportation offers the commercial motor, however, this is no more encouraging than is the bare fact that many business men, after serious trial of trucks and delivery wagons in their respective undertakings have commenced to call for more of the same sort. That fact alone brands the commercial car as a fixture in the commercial world.

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Secretary of State Koenig, of New York, performed a crafty stroke in making a loud noise regarding his intention vigorously to enforce the new Callan bill and to subject chauffeurs to a rigorous examination. The noise served to distract attention from the fact that a large number of the examiners whom he appointed merely are political camp followers. While he leavened the mass with a few capable and well known experts, if any of the politicians for whom Koenig has found soft berths know the difference between an accelerator and a speed lever, or ever have displayed special knowledge or fitness for their jobs, it would be interesting to have them singled out. It will be equally interesting to discover how much money will be left for or will be devoted to road improvement after the camp followers and "other legitimate expenses" have been "taken care of" in the way peculiar to professional politicians.

## COMING EVENTS

**July 14, Newport, Ind.—Newport Motor Club's second annual hillclimb.**

July 15-16, Dayton, Ohio—Automobile Club of Dayton's race meet.

July 16-18, New York City—Motor Contest Association's reliability tour to Catskill, N. Y., and hill climb on Clove mountain.

July 16, Wheeling, W. Va.—Ohio Valley Automobile Club's race meet at Island track.

**July 18-22, Milwaukee, Wis.—Wisconsin Automobile Association's first annual endurance test for "Milwaukee Sentinel" trophy.**

July 22-27, St. Paul, Minn.—Minnesota State Automobile Association's second annual reliability run for the "Dispatch" trophy; 660 miles.

July 23, Brighton Beach, N. Y.—Motor Racing Association's race meet on mile dirt track.

July 23, Atlanta, Ga.—Atlanta Automobile Association's race meet on Speedway.

July 24, New Braunfels, Tex.—San Antonio Automobile Club's hill climb.

July 28-29, Chicago, Ill.—Chicago Automobile Club-Chicago Athletic Club third annual interclub reliability team match.

July 30, Long Island Motor Parkway, N. Y.—Motor Parkway Inaugural Sweepstakes.

July 30, Salt Lake City, Utah—Salt Lake "Telegram's" third annual hill climb.

**July 30, Wildwood, N. J.—North Wildwood Automobile Club's race meet on Wildwood Speedway.**

August 1, Minneapolis, Minn.—Minneapolis Automobile Club's reliability run.

**August 3-5, Galveston, Tex.—Galveston Automobile Club's beach races.**

**August 6, Philadelphia, Pa.—Quaker City Motor Club's race meet at Point Breeze track.**

**August 6, Wildwood, N. J.—North Wildwood Automobile Club's beach race meet on Ocean drive.**

August 9-10, Brooklyn, N. Y.—Brooklyn Motor Vehicle Dealers' Association's 200 miles reliability contest on Long Island.

August 12-13, Philadelphia, Pa.—North American's reliability run for commercial motor vehicles to Atlantic City, N. J., and return.

August 15, Algonquin, Ill.—Chicago Motor Club's annual twin hill climb.

August 15-19—Start of second annual Munsey Historical Tour from Philadelphia, and terminating at Washington, D. C.; 1,700 miles.

August 17, Cheyenne, Wyo.—Cheyenne Motor Club's race meet on motordrome.

**August 19-20, Brighton Beach, N. Y.—Motor Racing Association's 24 hours' race at Brighton Beach mile track.**

August 26-27, Elgin, Ill.—Chicago Motor Club's road race and speed carnival.

**August 31, Minneapolis, Minn.—Minnesota State Automobile Association's reliability run.**

September 2, 3 and 5, Indianapolis, Ind.—Grand Circuit meeting on Motor Speedway

September 5, Wildwood, N. J.—North Wildwood Automobile Club's beach race meet on Ocean drive.

September 7-10, Buffalo, N. Y.—Automobile Club of Buffalo's touring reliability contest; 800 miles.

September 9, Santa Monica, Cal.—Southern California Automobile Dealers' Association's annual road race; 200 miles.

September 10, San Francisco, Cal.—Automobile Club of California's Portola road race in Golden Gate Park.

September 15, 16 and 17, Lowell, Mass.—Lowell Automobile Club's road race.

September 17, Syracuse, N. Y.—Automobile Club of Syracuse-Syracuse Automobile Dealers' Association joint racemeet at Fair Grounds track.

September 18, Los Angeles, Cal.—Annual road race up Mount Baldy.

September 21-23, Louisville, Ky.—Louisville Automobile Club's annual reliability and endurance run.

October 1, Mineola, L. I.—Sixth annual Vanderbilt Cup race on Long Island Motor Parkway, under the auspices of the Motor Cups Holding Co.

October 15, Long Island Motor Parkway, N. Y.—Second annual Grand Prize race.

November 5, Phoenix, Ariz.—Maricopa Automobile Club's Los Angeles-Phoenix road race.

November 10-13, San Antonio, Texas—San Antonio Automobile Club's races at International Fair grounds.

January 7-14, New York City—Association of Licensed Automobile Manufacturers eleventh annual show in Madison Square Garden. Pleasure cars and accessories.

January 17-24, New York City—Association of Licensed Automobile Manufacturers eleventh annual show in Madison Square Garden. Second week devoted to commercial vehicles.

January 28-February 4, Chicago, Ill.—National Association of Automobile Manufacturers tenth annual show in Coliseum. Pleasure cars and accessories only.

February 6-11, Chicago, Ill.—National Association of Automobile Manufacturers tenth annual show in Coliseum. Second week devoted to pleasure and commercial cars, accessories and motorcycles.

March 4-12, Boston, Mass.—Boston Automobile Dealers' Association's annual show in Mechanics building.

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## SURPRISES IN PLAINFIELD CLIMB

**Rankin and Winslow Upset "the Dope"—DePalma Takes Free-for-All—Sartorial Honors to a Sign Painter.**

As usually is the case when he drives the big 200 horsepower Fiat car, Ralph DePalma secured stellar honors in the second annual hill climb promoted by the Plainfield (N. J.) Automobile Club and held on Watchung mountain course near that city on Saturday afternoon last, 9th inst. Although DePalma gave a highly sensational performance, he did not have to exert himself to win in the free-for-all class and to establish a record for the hill. In the event named the daring Italian cut around the corners without shutting off, and reached the top of the five-eighths mile steep upgrade in 1 minute 20 seconds. The previous best time of 1:28 was established last year by Jack Rutherford, in a Stearns.

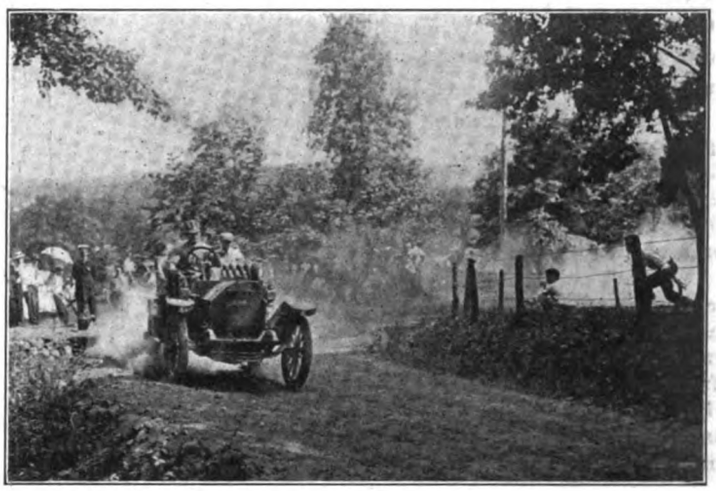
The climb last Saturday far surpassed the club's initial attempt last year. A large crowd was in evidence and they apparently enjoyed the performances and the cars as well as the several humorous incidents that occurred during the afternoon. One man appeared on the course with a silk hat and the conventional frock coat. He was much in demand early in the proceedings. Some thought he was the mayor of the town, while others imagined such clothes must place him in the governor class. It was only when he was discovered painting the numbers on the cars that his real status was made plain. It was a local sign painter dressed in his "Sunday best." Another funny incident was when someone suggested that a little water on the course might allay the dust. One of the local patriots, determined that nothing should be left undone to insure the success of the meeting, rushed to a nearby farmhouse, borrowed an ordinary garden sprinkling pot and let the few quarts trickle on the dusty highway. It was worth a trip to Plainfield to witness that performance.

E. B. Libey, in a Hupmobile, opened the ball by running away with the class for cars selling at $800 and under. J. Kottenridge, Mitchell, and W. H. Hobbie, Maxwell, were the only drivers to reach the top in the event for cars between $800 and $1,200. Kottenridge won in 2:04⅘.

Naturally the free-for-all event attracted most attention, and it also resulted in some surprises. DePalma was regarded as the probable winner, which ultimately he proved to be, but the crowd did not expect E. Rankin, the Chalmers-Detroit pilot, to defeat S. Martin, in the Houpt-Rockwell. Martin had made some phenomenal performances in preliminary practice, and when he was clocked in 1:22⅗ the spectators thought he had cinched second place.



"ACTION" ON ONE OF THE PICTURESQUE TURNS



KOTTENRIDGE SWINGING WIDE ON A CURVE



THE ARISTOCRATIC-APPEARING SIGN PAINTER.

Rankin, however, came along and after an admirable drive was timed in 1:22⅗, a most creditable performance. He later won the 301-400 cubic inches class without any real opposition, while Martin, in the larger car, defeated Rutherford and Winslow, in the class for cars between 450-600 cubic inches. His time—1:22⅗—was the same as in the free-for-all.

One of the closest contests of the day was the free-for-all for gasolene cars, with amateur drivers up. Winslow and Rutherford were the only entrants, and as Rutherford had made the fastest time in last year's climb he was regarded as a "sure thing." Winslow did not so regard him, however, and defeated the New Yorker by three-fifths of a second. The summary:

800 and Under.

1 E. B. Libey, Hupmobile.....2:00
2 J. S. Gray, Schacht.....2:21⅗
3 A. C. Dam, Hupmobile.....2:40

$801 to $1,200.

1 J. Kottenridge, Mitchell.....2:04⅘
2 W. F. Hobbie, Maxwell.....2:10⅘

$1,201 to $1,600.

1 Joe Taylor, Correja.....1:40⅗
2 F. McCarthy, Mitchell.....1:57⅗

$1,601 to $2,000.

1 Phile Hines, Buick.....1:32
2 Howard Bauer, Oakland.....1:35⅗

Free-for-All.

1 Ralph DePalma, Fiat.....1:20
2 E. Rankin, Chalmers-Detroit.....1:22⅗
3 S. Martin, Houpt-Rockwell.....1:22⅗

161-230 Cubic Inches.

1 C. Jones, Buick.....1:40
2 W. R. Roden, Krit.....2:01⅘
3 W. R. Roden, Krit.....2:03⅕

231-300 Cubic Inches.

1 H. S. Lake, S. P. O.....1:31⅗

301-450 Cubic Inches.

1 E. Rankin, Chalmers-Detroit.....1:27⅗
2 F. H. Clapp, Berkshire.....1:29⅘
3 Phil Hines, Buick.....1:31⅗

451-600 Cubic Inches.

1 S. Martin, Houpt-Rockwell.....1:22⅗
2 J. A. Rutherford, Stearns.....1:29⅘
3 C. W. Winslow, Stearns.....1:30

Gasolene Cars—Amateur Drivers.

1 C. W. Winslow, Stearns.....1:28⅗
2 J. A. Rutherford, Stearns.....1:29⅕

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## HARROUN ALMOST THE WHOLE SHOW

### Indiana Crack Bags Four Firsts at Louisville—Endicott Locks Hubs and Has a Narrow Escape.

Ray Harroun, the intrepid Marmon pilot, again showed his skill and speed on Saturday last, July 9, at Louisville, Ky. The meet was to have been a two days' affair at the mile Churchill Down dirt track, but rain caused a postponement of the second instalment until Saturday next, 16th inst. A large crowd witnessed the first day's racing, however, and Harroun gave them plenty of opportunity to marvel at his daring. Of the five events in which he entered Harroun and his Marmon car finished first in all but one race, that being a handicap, in which he started from scratch.

As a result of the accident at the Indianapolis Motor Speedway in which Thomas Kincaid lost his life, Johnny Aitken, his team mate, did not compete. He and his big National car were expected to furnish warm work for Harroun.

The track was slow and dusty and prevented any phenomenal times, but the races were keenly contested. The dust was responsible for the only mishap of the afternoon. In the second race, a 5 miles whirl for cars in the 161-230 cubic inches class, Harry Endicott, in an E-M-F, was running bonnet to bonnet with Edmunds in a Cole, William Endicott's Cole throwing up a cloud of dust a few yards in front. Suddenly there was a crash and when the dust cleared away the E-M-F was found to be overturned and Endicott lay underneath it. The official car reached the scene a few seconds later and Endicott was released from his ticklish position little hurt except for a few bruises. It is presumed that he locked hubs with the Cole car, when the dust made it impossible to see.

One of the best events of the day was the 25 miles race in two classes, one for cars from 161 to 230 cubic inches and the other for machines exceeding the 230 displacement. As the cars were all started together it made an interesting sight, as the faster cars lapped the smaller and less speedy. In the larger classification Harroun defeated Dawson, his team mate, by covering the distance in 28:33, while the smaller class went to Endicott, in the Cole car. The latter also finished first in the 5 miles for cars of the 161-230 category. The summaries:

Five miles, under 160 cubic inches—Won by McCormick, Herreshoff; second, Emmons, Herreshoff; third, Smith, Herreshoff. Time, 6:45.

Five miles, 161 to 230 cubic inches—Won by Endicott, Cole; second Edmunds, Cole. Time, 61:17.

Five miles, 231 to 300 cubic inches—Won by Harroun, Marmon; second, Hughes, Parry. Time 5:56.

Five miles, 301 to 450 cubic inches—Won by Harroun, Marmon; second, Dawson, mon; third, Gilchrist, Stoddard-Dayton. Time, 6:05.

Five miles handicap, up to 300 cubic inches—Won by Emmons, Herreshoff; second, Hughes, Parry; third, Endicott, Cole. Time, 6:27.

Five miles free-for-all—Won by Harroun, Marmon; second, Dawson, Marmon; third, Hughes, Parry. Time, 5:49⅗.

One mile against time—By Harroun. Marmon. Time, 1:05⅕.

Five miles handicap, free-for-all—Won by Hughes, Parry; second, Dawson, Marmon; third, Harroun, Marmon. Time, 6:05.

Twenty-five miles class race—Class A (161-230 cubic inches), won by Endicott, Cole; second, Edmunds, Cole. Time, 31:42. Class B (over 230 cubic inches), won by Harroun, Marmon; second, Dawson, Marmon; third, Gilchrist, Stoddard-Dayton. Time, 28:33.

### Californians to Try "Selling Races."

While the suggestion of selling races for automobiles, fashioned after the horse races of that kind, frequently has been made, it has been left for the San Francisco (Cal.) Automobile Dealers' Association to put this suggestion into actual practice. In order to eliminate "doctored" and specially built cars, and yet keep the event practically "open to all," it has been decided to make the races on the Santa Monica course in September next "selling" events; the winner of each event will be offered for sale at auction immediately after the race, with the list price of the car as the minimum bid. So as to prevent owners of winning machines from buying them back at an exorbitant price, and thus claiming the cars sold for a high figure, each dealer who may bid in his own car must pay into the treasury of the association the difference between the list price and the auction price, if the latter should exceed the catalog figures.

### Denver Building a $50,000 Speedway.

Of the epidemic of speedways that has made newspaper talk, at least one is to become a reality—the Denver project. The construction work already has started and is expected to be completed by August 6th, when the first race meet will take place. The track, which is located at Sable, Col., eight miles from Denver, on the Kansas & Pacific railroad, will be a 3¼ miles oval, affording a mile straightaway. It will be 150 feet wide on the homestretch and 100 feet on the turns and backstretch. The course is being constructed by the Denver Motor Speedway Association, which was recently incorporated with a capital of $50,000. The officers are: Fred Manley, president; Frank M. Headlee, secretary; Donald P. Hogan, treasurer.

## TEXANS INSTITUTE NOVEL RACE

### "Speed Violators' Chase," they Term it, and it Proves Realistic—Seven Events Decided at Dallas Meet.

With 6,000 people in the stands, not counting the occupants of 112 automobiles drawn up in imposing array in the infield, the meet of the Dallas (Tex.) Automobile Club held at the fair grounds mile track on July 4th was the success anticipated. W. H. Bertrand, driving a Simplex car, made the fastest time of the day, covering a mile in 49⅕ seconds, which is said to equal Barney Oldfield's record on the same course.

E. O. Sluder, driving a Maxwell car, won the first event—for cars of 10 to 20 horsepower—and Sacksteder, in the same kind of machine, defeated R. M. Hardeman, Brush, in a 3 miles match. In the 5 miles stripped roadster race, T. B. Funk, Overland, had an easy victory.

In the three miles race for stock touring cars, B. W. Lindsley in a Thomas "Flyer" had an easy time defeating Ed. Sluder in a Columbia, finishing the distance in the slow time of 5:02⅖.

One of the events that excited a great deal of attention was the "speed violators' chase." It was designed to show the spectators just how a chase between an automobile driver and a motorcycle cop looks. Clarence Linz came down the stretch in an Austin car and refused to stop when signaled by "Policeman" Ford. The latter promptly hopped his motorcycle and gave chase. The "cop" had to ride all out for more than two miles before he brought the "culprit" before the judges. In this case the sentence took the form of a silver cup presented to Ford. The summaries:

Five miles, 10 to 20 horsepower—Won by E. O. Sluder, Maxwell; second, J. Stiff, Hudson. Time, 6:18.

Three miles match—Won by A. Sacksteder, Maxwell; second, R. M. Hardeman, Brush. Time, 6:02⅖.

Five miles for stripped roadsters—Won by T. B. Funk, Overland; second, Joe Girard, Locomobile; third, Clarence Linz, Kissel Kar. Time, 5:47.

"Speed violator's chase"—Won by "Policeman" Ford on motorcycle; second, Clarence Linz, Austin car. Distance, 2 miles.

Three miles for touring cars—Won by Con Moseley, Kissel Kar; second, W. A. Fosdick, Moline; third, W. L. Hancock, Regal. Time, 4:15⅕.

Three miles for stock touring cars—Won by B. W. Lindsley, Thomas; second, Ed. Sluder, Columbia. Time, 5:02⅖.

Five miles free-for-all—Won by W. H. Bertrand, Simplex; second, T. B. Funk, Overland; third, Joe Girard, Locomobile; fourth, C. Linz, Kissel Kar. Time, 5:38⅕.

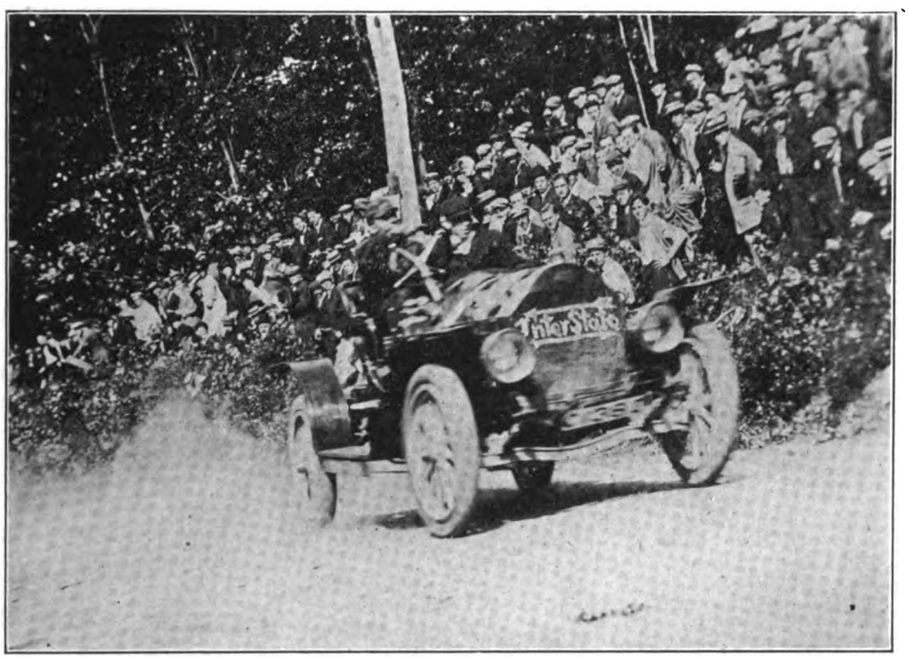
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## CONTEST UP COLORADO MOUNTAIN

**Cars Ascend a Road with Eight Switchbacks at Mount Morrison—Free-for-All Has to be Run Twice.**

What was probably the most exacting hill climb ever held in America took place on Mount Morrison, near Denver, Col., Sunday afternoon last, 10th inst. The chief laurel winner of the day was William Thonney in a Ford car, who won the free-for-all and made the fastest time in the class events.

Although the course was only 1 7-16 miles in length, yet in that distance the cars had to ascend 1,000 feet, and it is the last part of the climb that is the most difficult and also the most dangerous. The mountain rises precipitately at that point, and in order to make the ascent eight switchbacks have been made in the road in the last 1,200 feet, and in this short distance the rise is 265 feet. Until the cars reached the switchbacks they all proceeded without trouble.




F. A. KING (INTER-STATE) LEADING HIS CLASS IN DENVER HILL CLIMB

The meet was scheduled to start at 2 p.m., but delays held up the start until 3 o'clock, when the little Brush runabout, carrying Mr. and Mrs. F. A. Trunkle, got the signal to start in the under $500 class. There were many who did not expect the baby machine ever to reach the top, but a surprise was in store for them. The Brush chugged steadily to the top in 13 minutes 55 seconds.

Fred and Stewart Alkire, in a Ford, were the first starters in Class B, for cars under $1,250, and they reached the top in 5:17⅗, the best time made in any of the events except the free-for-all. William Thonney and Jack Daniels, in another Ford, were second in 5:52⅖.

A Reo and an Oakland contested the class for cars under $1,500, and the former, piloted by W. E. Hodgson, with Jack Daniels also aboard, made the trip without incident in 5:43⅗, winning the cup easily. F. A. King and R. Berry, in an Inter-State, took the event for cars above $1,500; their time was 5:35⅗.

In the free-for-all event a dispute arose over the correctness of the time, and all the cars were required to make a second ascent. William Thonney, Ford, was clocked in 5:16⅘—the fastest time made. McDonald, in the Reo, was second in 5:23⅗. It was in this event that the Ford car, driven by Alkire, met its Waterloo. He was rounding a curve at fast speed when a soft piece of ground caused the car to upset. Alkire escaped injury and repaired the damage on the spot, later driving it back to the starting point and thence back to Denver.

The climb was held under a sanction from the American Automobile Association and the trophies in the class events were presented by John Brisbane Walker, proprietor of the Mount Morrison Summer Resort Co. The cup in the free-for-all was donated by the Great Western Oil Co. The summaries:

Class A, under $500—Won by Mr. and Mrs. Fred A. Trunkle, Brush. Time, 13:55.

Class B, under $1,250—Won by Fred and Stewart Alkire, Ford, 5:17⅗; second, William Thonney and Jack Daniels, Ford, 5:52⅖; third, Vincent Colby and Edward Maxwell, Oakland, 7:13⅗.

Class C, under $1,500—Won by W. E. Hodgson and Jack Daniels, Oakland, 5:43⅗; second, James McDonald and Steven Brown, Reo, 6:45.

Class D, above $1,500—Won by F. A. King and R. Berry, Inter-State, 5:35⅗.

Electrics—Won by O. P. Fritchle, Fritchle, 20:00.

Free-for-all—Won by William Thonney, Ford, 5:16⅘; second, James McDonald, Reo, 5:23⅗.

**Woman Mystery in McKeesport Climb.**

A. G. Somerville, of Pittsburg, Pa., created the sensation of the Old Home Week celebration at McKeesport, Pa., on Wednesday, 6th inst., in the automobile hill climbing contest which formed the most exciting feature of the prodigals' tall doings. Somerville, who drove an Inter-State car in the free-for-all class, and not only won that class but made the fastest time of the meet, apparently is a publicity sharp who will make Colonel Bill Annanias Pickens look to his laurels.

Just a second before the starter gave Somerville the signal to start, a handsome, stylishly-dressed young woman deposited herself in the seat beside the driver. McKeesport stood and gaped. Could it be possible that a woman would dare that "perilous" drive? It was possible, as they found out, and the lady really seemed to enjoy the sensation she created for she waved her gloved hand at lined-up marvelling McKeesport. Somerville disclosed his space-getting ability when he refused to tell the McKeesport reporters the lady's name.

The hill upon which the climb was held was exactly one mile in length and had three sharp turns, so that the time of Somerville—1 minute 41 seconds—was a creditable performance. Somerville received two cups—one for making the fastest time at the meet and the other for winning the free-for-all class. Harry Chamberlain, Buick, was second, in 1:50. Chamberlain also won Class D in 2:12, which was much slower than the winning Ford's time in Class E. The fastest time for touring cars was scored by a Kline-Kar, entered by the Kline Motor Co., of Wilkinsburg, Pa. The Kline won by nearly 30 seconds, when it romped up the incline in 2:01. The summaries:

Free-for-all—Won by A. G. Somerville, Inter-State, 1:41; second, Harry Chamberlain, Buick, 1:50; third, Ford, 1:55; fourth, Vestal, 2:02; fifth, Premier, 2:11; sixth, Oakland, 2:15; seventh, Packard, 2:15; eighth, Kline, 2:16: ninth, tie between Kline and Hudson, 2:28.

Class B—Won by Kline, 2:01; second, C. H. Martin, Premier, 2:30.

Class D—Won by Harry Chamberlain, Buick, 2:12; second, tie between Kline and Oakland, 2:15; third, Auburn, 2:22; fourth, Inter-State, 2:25.

Class E—Won by Ford, 2:03; second, Ford, 2:33.

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## HANDICAP EVENTS THE FEATURES

**Dawson Takes one from Scratch and With Harroun and Ellicott Proves a Headliner at Cincinnati.**

Ray Harroun and Joe Dawson, the "Marmonese twins," easily were the headliners at the race meet on the Latonia mile track, near Cincinnati, Ohio, on Sunday last, 10th inst. Harroun scored three firsts, while Dawson took two firsts and was second four times. W. Endicott, in a Cole, took two firsts and a third, and Stevens, Emmons and Roberts also finished "in the money."

The Cincinnati meet, which was one of the circuit meetings being promoted by Walter Wellman and Homer George, was unusually interesting to the 3,000 spectators who journeyed out to the old track. Previous meets held in the vicinity were of the topheavy Oldfieldian sort.

Two handicap races were the features of the card. In the event for cars up to 300 cubic inches, five cars made the fight, with Dawson on the honor mark. Dawson's splendid handling of his speedy car elicited much applause as one by one he overhauled and passed the cars in front and won handily.

The handicaps proved too great for Harroun, the scratch man in the free-for-all handicap. Roberts, in the Herreshoff, was given 40 seconds and he made good his allowance, but another half mile would have resulted in a victory for Dawson, who started with 5 seconds. Harroun passed several cars, but finished fourth. He, however, won the free-for-all scratch from Dawson and the class race for cars exceeding 230 cubic inches. The summaries:

Five miles, under 160 cubic inches—Won by Emmons, Herreshoff; second, McCormick, Herreshoff; third, Smith, Herreshoff. Time, 6:14⅕.

Five miles, 161-230 cubic inches—Won by W. Endicott, Cole; second, Edmunds, Endicott; third, H. Endicott, E-M-F. Time, 6:11⅕.

Five miles, 231-300 cubic inches—Won by Dawson, Marmon; second, W. Donnelly, Cino; third, Ramey, Detroit-Dearborn. Time, 6:00⅖.

Five miles, 301-450 cubic inches—Won by Harroun, Marmon; second, Dawson, Marmon; third, Gilchrist, Stoddard-Dayton. Time, 5:57⅖.

Five miles handicap, up to 300 cubic inches—Won by Dawson, Marmon (scratch); second, Emmons, Herreshoff (0:30); third, W. Endicott, Cole (0:20). Time, 6:23⅖.

Five miles for cars owned by residents of Kentucky, Indiana and Ohio—Won by Stevens, Matheson; second, Gilchrist, Stoddard-Dayton; third, W. Donnelly, Cino. Time, 5:41⅕.

Five miles free-for-all—Won by Harroun, Marmon; second, Dawson, Marmon; third, Stevens, Matheson. Time, 5:23⅕.

Five miles handicap, free-for-all—Won by Roberts, Herreshoff (0:40); second, Dawson, Marmon (0:05); third, W. Endicott, Cole (0:20). Time, 5:50⅕.

Ten miles class race—Class A (161-230 cubic inches)—Won by W. Endicott, Cole; second, H. Endicott, E-M-F. Time, 12:56⅖. Class B (exceeding 230 cubic inches)—Won by Harroun, Marmon; second, Dawson, Marmon. Time, 12:06⅘.

### Flanders Now Under the Mexican Flag.

The Flanders "Under Three Flags" car, which left Quebec, Canada, June 5th, reached the Mexican border on July 5th, crossing the Rio Grande river on the bridge at Laredo, Texas. W. J. Lane, who had been driving the car, has been suffering the tortures of rheumatism, and it was planned that he should return to Detroit from Laredo, but at the last moment he insisted on being helped into the car and had a hand on the steering wheel when the Mexican flag was shifted to the place of honor on the Laredo bridge. Lane's companion, Paul H. Bruske, was doing the gear shifting, but Jesse Applewhite, a Texan, has been engaged to handle the car on the run to Mexico City, although Lane insists that he will follow by train and drive it into that city.

### Ohio Doctor's Remarkable Mileage Record.

Dr. A. E. Evans, of Columbus, Ohio, believes, and not without reason, that he holds the "electric vehicle record." Since April, 1905, he has driven the same car—a Studebaker—87,715 miles by odometer record, and this great distance does not include the distance traveled, 30 to 35 miles per day, during a period of five weeks when the odometer was out of commission. Dr. Evans has made affidavit to the correctness of this record, which does not, however, represent the full amount of traveling the busy Ohio physician has done, for in addition to his old Studebaker, he has had another electric in service at all times and recently has added a gasolene Studebaker to his stable.

### Confetti Throwing Causes an Arrest.

That throwing of confetti to mark the route of a contest constitutes a violation of law in some places was unpleasantly brought to the attention of the men who marked the turns on the course of the Philadelphia Automobile Club's recent contest to Lake Hopatcong, N. J. They were arrested in Morristown, N. J., for violating an ordinance which prohibits the littering of the streets with paper or other material. The magistrate was lenient, however, and under the circumstances released the offenders after they deposited $1 to pay for the hiring of a man to pick up the scraps of paper they had distributed.

## FOR FEDERAL REGISTRATION LAWS

**A. A. A. Decides to Continue the Fight—Bill, in Amended Form, to be Reintroduced in Congress.**

Despite the failure of two successive Congresses to give the measure serious head, the American Automobile Association is in no wise discouraged and again will introduce its Federal registration bill, but in somewhat amended form. This was determined at the July meeting of the A. A. A. executive committee, which occurred in Boston last week, when the following resolutions bearing on the subject were adopted:

"Resolved, That it is the sense of the executive committee assembled at Boston, July 7, that the A. A. A., through its state organizations, local clubs, and individual members, should renew their efforts toward securing the passage of the Federal Registration bill, though in an amended form to harmonize any difference of opinion which may have arisen since because of national discussion of the measure and added reasons for adoption since its first presentation to Congress.

"Resolved, That it is the belief of this committee that a most potent reason for securing a Federal Registration law now exists in the present inability of the United States to enter into the recently-concluded international agreement providing for the issuance of 'international plates of identity' which permit the uninterrupted passage from country to country without hindrance insofar as it refers to the identification numbers of a car or the right of its operator to drive.

"Resolved, That this act should not interfere unduly with any state that has granted or may grant reciprocity upon its own initiative to the motorists of other states."

In addition to receiving routine reports, the Boston meeting elected Dr. Charles L. Bonifield, of the Automobile Club of Cincinnati, a member of the executive committee, and the Taylor (Tex.) Automobile Club to membership in the association, the total membership of which now is exactly 30,153, most of which is comprised in the 262 clubs on the roll, the individual club members being counted A. A. A. members as well.

### Protest Against Premier Disallowed.

The protest of the Chalmers representatives against the award of the Glidden trophy to the Premier car driven by Ray MacNamara has been disallowed by the referee. He held that as the auxiliary hand pump, which supplied the basis for the protest, had been fitted to 22 per cent. of the cars produced by the Premier company, MacNamara's Premier properly was a stock car.

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## WIN A QUAKER CITY "CONCESSION"

**Delaware Motorists Make Philadelphia Fathers Abandon City Tag Exaction—Will be Unrestricted Hereafter.**

Philadelphia has had another awakening, the prod which this time caused its eyes to open being administered by the neighboring state, Delaware. It appears that shortly after the new state law became effective and which opened Pennsylvania to residents of those states that accorded reciprocal privileges, the Philadelphia authorities issued orders requiring such non-residents to call at the city hall for a tag, which would grant them the freedom of the city while the Fairmount Park Commission imposed similar conditions respecting non-residents' use of that big park.

The orders were designed chiefly to "keep tabs" on motorists from New Jersey, which exacts an "admission fee" from all visitors, but their force was felt as much by the near-by Delawareans. Accordingly, the Delaware Automobile Association took up the matter and when it pointed out that by requiring a special tag the city of Philadelphia was violating the law of its own state, which forbids that sort of thing, the Philadelphia authorities quickly came down and revoked the obnoxious order. The Fairmount Park authorities did likewise, but declared that its come-down was merely a "concession," as it claims its power to regulate the use of automobiles includes the power even to require special tags. The net result of the relief secured by the Delaware organization is that henceforth the tags of non-residents' native states, New Jersey excepted, will be sufficient to assure their unrestricted passage through Philadelphia or any other part of Pennsylvania.

### New Knot Tied in New Jersey Law.

Hugh B. Reed has tied a new knot in the New Jersey automobile law, the unraveling of which is causing some of the wise and reverend signors of the bench to wrinkle their brows. Reed represents the Montclair Garage & Machine Co., which, before Recorder Nott, of East Orange, was charged with having violated the state law in having, on June 4th, driven a car in East Orange at a rate exceeding 35 miles an hour. When the case came up last Saturday Reed did not question the identity, but held that the law, which fixes a fine, with the alternative of imprisonment, cannot hold, because a corporation cannot be imprisoned. He also contends that the corporation cannot be guilty of speeding the car, for the corporation, as such, has no license to run one. The operator of the car, he said, must be an individual. The novel and unexpected contention "gave pause" to the Recorder, who felt that he needed at least a week to consult his law books and "think it over." He is due to render a decision on Saturday next.

### Suggests a Curfew for Automobilists.

Semi-seriously, the Richmond (Va.) Times-Dispatch suggests a curfew for automobilists, in favoring an ordinance requiring uniform alarm signals. It thinks that if the curfew rang at 11 o'clock each night it "would give the people who own cars ample time for all the riding that would be good for their health and all the enjoyment they could reasonably expect from touring, and it would at the same time give the quiet people who live in much frequented thoroughfares the chance to live and die in peace. We think that every one should get all the pleasure out of this life that he can," further observes the Richmond publication, "but we do not believe that anybody has the right to punish his neighbor for the sake of his own personal pleasure."

### Where it is Illegal to Repair Tires.

Hereafter when a motorist punctures a tire or suffers other trouble on certain parts of Michigan avenue, Chicago, he must limp with his car to a side street, or push it there, as the Southside Park commissioners who have jurisdiction over the avenue have placed a ban on the making of such repairs while on that much-traveled thoroughfare. They also have decreed that not more than one vehicle shall stand in front of any building on the avenue except when loading or unloading. As most of the automobile establishments are located there, the order strikes directly at them.

### How Cincinnati Would Suppress Noise.

Night noises having grated harshly on the ears of Councilman Moyer of the Cincinnati (O.) city council, that gentleman has introduced an ordinance designed to promote slumber. His measure would forbid the opening of mufflers between the hours of 8 p. m. and 8 a. m., would prohibit the use of all alarm signals except reed horns, and prevent the performance of any work "causing unusual noise" in garages and repair shops between 8 p. m. and 7 p. m. and at all hours on Sunday.

### Youthful Driver Gets Father "in Bad."

A father who, after warning, permitted his 16 year old son to drive his car, has been cited by New Jersey's commissioner of motor vehicles to show cause why he should not be punished. The commissioner also has revoked the license of a chauffeur for unauthorized use of his employer's car.

### Connecticut Enforcing its Muffler Law.

In many parts of Connecticut, the police officials are conducting a crusade against open mufflers, which are forbidden by the state law. Some of the policemen, however, are reporting their inability to distinguish an open muffler from a closed one.

## DUNLOP TO BE DONE IN BRONZE

**Decision Reached to Erect Statue of Pneumatic Tire Inventor in Edinburgh—Thomson's Son Lodges a Demurrer.**

Overcoming all scruples as to the ethics of erecting a statue to a man who still is alive, it formally has been decided to immortalize John Boyd Dunlop in bronze. Furthermore, the memorial to the inventor of the pneumatic tire is to be set up in the city of Edinburgh, Scotland, thus settling another cause of strife among those who have been anxious to do proper honor to one whose service to the world is deserving of profound recognition.

The movement now has progressed to a point where the organization of the committee in charge of the fund has been completed with David A. Fairley, C. A., of Edinburgh, as permanent honorary secretary, and the committee is going ahead with its plans and soon is to issue specifications for competitive designs. Three prizes are to be awarded to the sculptors who succeed in producing the three most acceptable conceptions for a statue.

Since the memorial first was proposed, last fall, the situation has been enlivened by the brisk contest between various localities claiming the honor of supplying the site for the memorial. The movement started in Scotland, but as the aged inventor has spent most of his life in Ireland, even perfecting his invention there, the city of Dublin was urged as a fitting place to perpetuate his memory. His Scottish admirers prevailed, however, and steps are being taken to secure a proper location for the monument in Edinburgh, as already stated.

Meantime Courtauld Thomson, son of the late R. W. Thomson, has bobbed up and urged the claims of his father as the real inventor of the pneumatic. As is well known by those who are familiar with the earlier chapters of cycling history, the elder Thomson, who for many years lived in Edinburgh, where for years he was president of the Scottish Society of Arts and where he died in 1872, actually produced rubber tires in one form or another in 1848. Furthermore, the son is authority for the statement that the Dunlop Pneumatic Tire Co. at present has in its possession a set of brougham wheels fitted with the original Thomson tires. That a set of the original tires is in existence was not generally known, and in view of the fact that Dunlop's first tire has been deposited in the Edinburgh Museum, it has occasioned some little surprise that the fact of their present possession by the Dunlop company has not before been mentioned. The younger Thomson, while not antagonistic to the Dunlop memorial proceedings, feels that

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they should not be permitted to obscure the memory of his father's advancement. Of the existence of a prior invention in the same line, it should be added in justice to the recipient of premier honors, Dunlop was unaware when he conceived and brought out the bicycle tire that so upheaved the universe.

### Would Close Boston's Park Drives.

Because the state legislature declined to do what he asked, Mayor Fitzgerald, of Boston—the one in Massachusetts—high-mindedly proposes to "take it out" on the automobilists. Because automobiles actually use the roads in the Boston park system and subject them to some wear, the mayor believes the city should receive a share of the gate receipts, or rather of the registration fees paid to the state. He thinks 25 per cent would be about the right amount to pay for the repair of the parkways. He asked the last legislature to give him that proportion of the fees, but instead he received what inelegantly is termed a "turn-down," and this despite his threat to close the parks to automobiles if his demand was refused. The legislature having adjourned, His Honor is endeavoring to make good his threat. Acting through the Boston Park Commission, he has issued an order excluding motor vehicles from the parks and parkways, but unfortunately for Fitz the order is without force or effect until it is approved by the Massachusetts Highway Commission, which spends the money received from registration fees and which apparently has no desire to relinquish any part of the money, since if Boston is given a share every other municipality in the state will be as much entitled to a portion. While its decision apparently is clearly foreshadowed, the highway commission has set July 23rd as the date for argument of the subject.

### How Flynn Satisfied an Irate Lawyer.

From the Atlantic seaboard to the summit of the Rockies in a Maxwell runabout is a trip just completed by George J. Flynn, an automobile dealer of Huntington, W. Va., in order to make good his end of a wager with a refractory customer. Flynn had sold the runabout to a lawyer and the latter returned it complaining that a water jacket was broken. Flynn examined it and said the only damage was a broken spark plug. The irate attorney refused to accept the car, and Flynn offered to wager, with the car as the purse, that he could drive it anywhere the lawyer stipulated, if he was reasonable.

"Go to Butte, Mont., in 14 days," said the lawyer, according to Flynn's story, and Flynn started. He reached there in 13 days. The car was ready for a return trip, but not so the man. Flynn declared he would never make the trip again for all the automobiles ever manufactured. He started with $150 and arrived with 85 cents.

## MIXED ON MARYLAND'S NEW LAW;

### Even the Attorney-General of the State is at Sea in Interpreting it—Doubtful as to Reciprocal Requirements.

In Maryland, where a new law went into effect on July 1st, they already are having trouble over the interpretation of some of the clauses. The law is remarkable in several respects. Among other things, it fixes speed limits and then tears them down by permitting local authorities to adopt their own limits, and it also requires all drivers to be licensed, and yet permits unlicensed persons to drive provided they are accompanied by a licensed operator, who is made responsible for violations of the law; thus, for instance, an owner may drive his car if accompanied by his chauffeur, but the latter becomes responsible for his boss's derelictions.

The peculiar point over which the Marylanders now are sweating is, however, the section of the law applying to non-residents, which is a wonderful conglomeration, as follows:

140A. Any owner or operator not a resident of this state, who shall have complied with the laws of the state in which he resides, requiring the registration of motor vehicles, or licensing of operators thereof, and the display of identification or registration numbers on such vehicles and who shall cause the identification number of such state, in accordance with the laws thereof, and none other, together with the initial letter or letters of said state to be displayed on his motor vehicle as in this sub-title provided while used or operated upon the public highways of this state, may use such highways not exceeding two periods of seven consecutive days in each calendar year, without complying with the provisions of Sections 133 and 137 of this sub-title, if he obtains from the Commissioner of Motor Vehicles and displays on the rear of such vehicle a tag or marker which the said Commissioner of Motor Vehicles shall issue in such form and contain such distinguishing marks as he may deem best, upon the application of said owner or operator; provided that if any non-resident be convicted of violating any provisions of Sections 140B, 140C, 140D, 140E and 140L of this sub-title, he shall thereafter be subject to and required to comply with all the provisions of said Sections 133 and 137 relating to the registration of motor vehicles and the licensing of operators thereof; and the Governor of this state is hereby authorized and empowered to confer and advise with the proper officers and legislative bodies of other states of the Union and enter into reciprocal agreements under which the registration of motor vehicles owned by the residents of this state will be recognized by such other states, and he is further authorized and empowered, from time to time, to grant to residents of other states the privilege of using the roads of this state as in this section provided in return for similar privileges granted residents of this state by such other states.

That portion of the section requiring non-residents to obtain Maryland tags, without payment was tacked on to the bill by Senator Blair Lee, and is the part which is causing the trouble. It is believed that it ties the hands of the Governor in effecting reciprocal agreements with other states, Pennsylvania already having served notice that if Pennsylvania motorists are required to apply for or carry Maryland tags, the Keystone State will decline to recognize such action as reciprocal and will treat residents of Maryland as residents of a non-reciprocating state and exact full fees and require the necessary tags.

The attorney-general of Maryland is wrestling with the problem, and it is hoped that he will be able to reach an interpretation that will avoid entanglements with motorists and friction with neighboring states having reciprocal provisions in their laws.

### Warning Motorists by Block System.

The block signal system, which for years has proven so effective in railroading, at last has been extended to protect automobiles from being smashed by onrushing trains. At a crossing in South Plainfield, N. J., the Lehigh Valley railroad has installed "banjo" signals which indicate "Danger" automatically whenever a train is approaching from either direction. These signals are entirely separate from the regular train signals, and are operated purely as a safeguard for vehicles. At this crossing an automatic bell has been in operation for some time, but the noise made by many of the cars when going at high speed often prevented the driver from hearing the warning signal. The signal is only at the "safety" point when the device is in perfect working order, and any defect in the mechanism immediately raises the signal "Danger."

### Drink Causes Doctor a Heavy Fine.

The heaviest fine ever assessed upon a motorist in New Jersey was doled out to Dr. George A. Soden, of 462 Central avenue, East Orange, when he was arrested on a charge of being intoxicated while driving his car through crowded city streets. Only the fact that he was a physician in good standing and was married, saved the offender from a heavy jail sentence. The automobile was afire, and tearing along the streets at a rate of 20 miles an hour, while the drunken doctor was hanging in a dazed condition to the steering wheel. Dr. Soden pleaded guilty and was fined $300.

### Indianapolis 24 Hours Race Called Off.

The management of the Indianapolis Motor Speedway has abandoned the 24 hours race, which was scheduled to occur August 12 and 13. The next meet, therefore, will be on September 2, 3 and 5. The reason given for the abandonment is that the management feared a fatality in such a long grind.

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## ADHERES TO THE LEFT HAND DRIVE

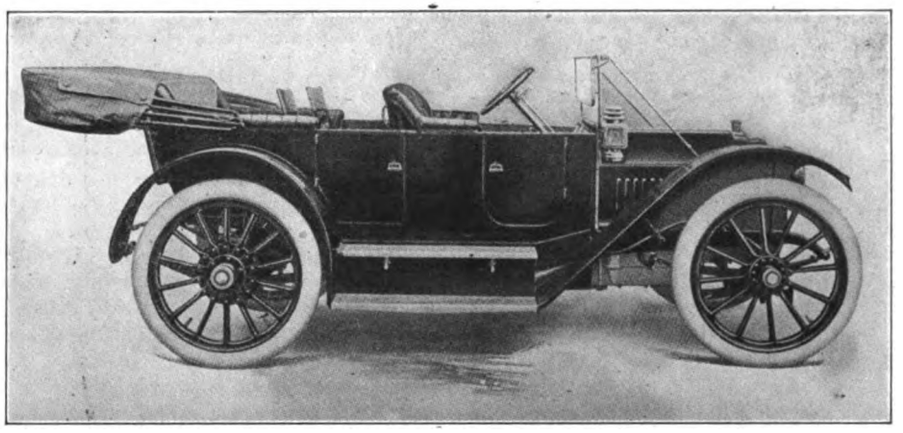
### Owen Car Marked by a Feature Unusual for Large Machines—Long Stroke for the Motor and Large Wheels.

Gradually the cause of the left hand driving position is gaining favor in this country. Counting light commercial vehicles, taximeter cabs and small runabouts, there are at present about a dozen different makes of American car in which this feature regularly is installed. In one instance, at least, an option is offered on left or right hand control, while in a number of cases, manufacturers employ one system on certain models and the other on different ones. Quite the most remarkable exponent of the left hand driver's position, however, is the Owen car, which in more ways than one proved a noteworthy addition to the great and growing list of domestic products, and which for 1911 will be characterized by refinement of minor details only, as the general construction of the 1910 model has been retained.

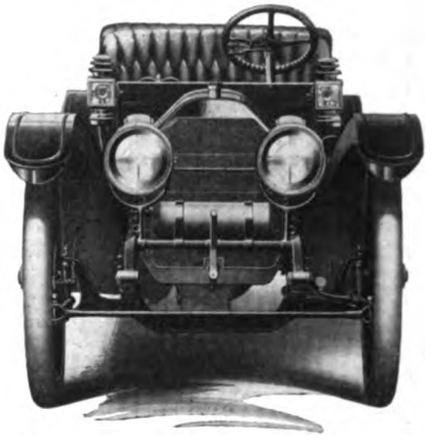
In the Owen, which is produced by the Owen Motor Car Co., Detroit, Mich., the left hand system is signalized by a particularly successful arrangement of the operating mechanism, as well as by one or two features which are original. The really distinguishing point about the car, however, is the fact that it is the first large touring car to be so equipped within recent years, or since the placing of the driver on the right side of the car became the generally accepted practice.

Suggesting, as the increasing use of left control does, the question of its advantages, it may be well to recapitulate some of the arguments which have caused it to be considered seriously after its abandonment by those who had espoused it in the earlier days of the industry. Thus, it is urged that when the operator sits on the left side of the machine he is enabled to judge accurately the amount of hub clearance between his own machine and opposing traffic. In narrow streets or highways this is an important advantage, and in answer to the objection that it is equally important, if not more so, for him to be able to observe the nature of the footing offered for his right wheels, whether in a gutter, alongside a curb or in the bushes which line the country highway, it may be added that whereas the operator may safeguard his car under difficult circumstances by driving slowly, he cannot govern the speed of a car which is approaching from the opposite direction. As it is from that quarter that the real peril of collision may be expected, the driver who is so placed that he can obtain a clear view of the other car is thought to be in the proper position. A similar argument obtains with respect to the passing of vehicles which are traveling in the same direction, and the need of gauging the width of the road, looking out for approaching vehicles and observing conditions in the road ahead. Still another point, which is particularly important where town use has to be taken seriously into account, is that with the driver's place on the left hand side of the car, the right, which always should be brought up to the curb, is left unencumbered for the entrance and exit of passengers.

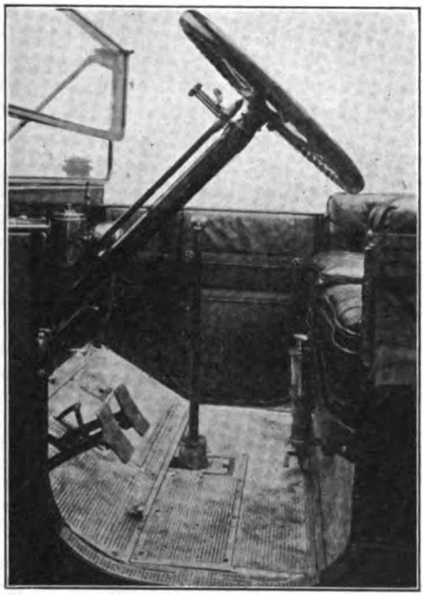
One difficulty which has been encountered in arranging the mechanism for left hand control of the machine is that of producing a satisfactory arrangement of the control gear itself. It is generally conceded that



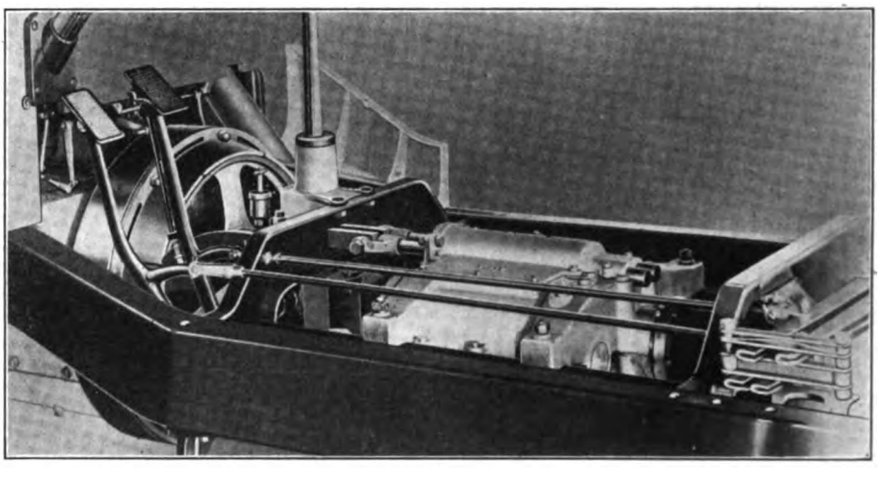
OWEN LEFT DRIVEN 50 HORSEPOWER TOURING CAR



HOW THE GAS TANK IS MOUNTED



THE CONTROL MECHANISM



CHASSIS VIEW SHOWING CLUTCH AND CHANGE GEAR

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by the sanction of good use and popular demand, the operating levers should be at the driver's right hand. Such being the case, unless due provision to the contrary is made, there is some likelihood that the foot board may be needlessly encumbered and the seating accommodations needlessly crowded. In the arrangement of the Owen control system, due recognition has been given these points.

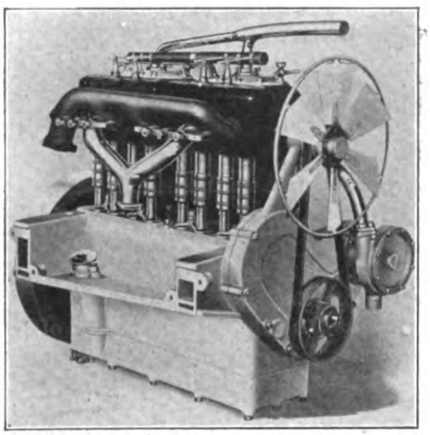
In the first place one of the customary levers is dispensed with, the entire control of the brakes being vested in a pair of foot pedals, instead of in a single pedal and a lever. Second, by using a selective gear lever of the pattern sometimes known as the fulcrum type, that is to say, minus the usual segment, but pivoted on a spherical joint at the floor line, the amount of space taken up by the control gear is reduced to very small proportions. By this means both sides of the car are left free for entrance, while the single lever employed, as the accompanying picture shows, by no means is objectionable, nor liable to be obstructed by the passenger while it is efficient and convenient to handle.

In accordance with the present mode in automobile construction, the Owen body is built with straight, high sides, thus approaching in form the torpedo style, though distinguishable from the true torpedo in a number of ways. Another distinctive point about the appearance of the car is its apparent great size. This is due to the use of extremely large tires, the specifications calling for 42 by 4 inch tire equipment both front and rear. Unlike many cars, it is readily distinguishable when seen from the front, due to the method of mounting the acetylene storage tank. Instead of being mounted on the running board in the conventional way, the tank is placed in front of, and below the radiator, occupying an inconspicuous position just over the starting crank shaft, where the pipe leads to the headlights are reduced to about their lowest possible minimum, and where it is out of the way.

The motor is distinguished by an unusual ratio of bore to stroke, the cylinder dimensions, in fact, being 4¾ by 6 inches, and giving 50 horsepower. The long stroke arrangement has been adopted with the object of securing a high torque at low crank shaft speeds. The gear ratios for the various transmission speeds have been worked out in such a way that the highest engine torque will be available for the average running speeds so that quiet operation is assured.

The general appearance of the motor will be seen by the accompanying illustration, from which it is evident that the valves are mounted on the right side of the machine, the left side being left clear of encumbrance save for the magneto and a single line of water piping. The circulating pump, which is on the left, is carried in front of the gear housing and, therefore, is close behind the radiator. A noteworthy detail of the engine arrangement is the housing of the valve lifters, springs and stems in individual sleeves, which afford them ample protection, at the same time leaving them readily accessible in case of need. The cylinders are cast in pairs with liberal core openings, the spark plugs are mounted over the inlet valves, which are fed from a Y-shaped manifold; the pistons are unusually long, with the rings carried close to the top, instead of being distributed down the body; the connecting rods are of H-section, long, and equipped with liberal big-end bearings secured by four bolts.

The crank case, the lower section of which constitutes the oil reservoir, is of liberal proportions. It is flanged at the sides to form a complete dust pan extending to the side frame members. Lubrication is effected through the medium of a constant level splash system with automatic pump service from the base reservoir. Ignition is by Bosch high tension magneto, with battery reserve and starting equipment.



OWEN FOUR CYLINDER MOTOR

Transmission is through a simple cone master clutch, sliding change gear and propeller shaft to the full floating rear axle. The change gear affords three forward speeds. Its mounting is decidedly peculiar, though not unreasonably so. In order to reduce vibration and noise, as it is explained, the sub frame which carries the gear set is of wood. The transmission bearings are of plain white brass, as are those of the engine. The wheels, however, run on Timken roller bearings of the familiar adjustable type.

The brakes, which are of the conventional, rear wheel band type, are pedal actuated, as already indicated. The set corresponding to the usual hand operated emergency brake is connected to a ratchet controlled pedal, which thus permits the machine to be locked when left standing unattended. The service brakes are actuated by the clutch pedal when the latter is forced into its extreme position. The control mechanism thus is rendered extremely simple. Both sets of brakes are applied through equalizing beams which extend entirely across the chassis. By means of the double drop and "bottle-neck" construction of the frame, low center of gravity and wide turning lock are achieved. The spring suspension, which is semi-elliptical in front and three-quarters elliptical in the rear, is of ample proportions. Hence, despite its somewhat radical characteristics, the machine promises to give a good account of itself in service.

### How Horse Helps Garage Owner.

Saving money in garage operation by the use of a horse is a new phase of the business, resulting from some sensible cost figuring by a garage owner. C. R. Zacharius, of Asbury Park, N. J., who is a pioneer in the employment of a horse in a garage, figures that the beast saves him $1,500 a year or more. His method of ariving at this estimate and the reasons which impelled him to add equine equipment to his big garage are rich in suggestion to all garage proprietors who feel a concern about stopping up financial leaks and reducing the proportion of expenditure to receipts.

After making a thorough study of the various losses attending the garage end of his business, Zacharius found that the movement of cars to and from the wash stands cost him a great deal of money. In some instances it took quite a number of his garage men to move a big touring car to the washstand, and they spent considerable time on the job. Similar losses in men's time were incurred when the car was moved away from the stand again. He even found that it was sometimes costing almost $1 just for moving a big car, for the washing and polishing of which he obtained only $1.25. A horse now does the duty of the men in moving the cars about. By a simple harness arrangement, the animal quickly can be attached to any car in in the place, and in a minute the machine is pulled over to the washstand and another car removed to its resting berth in an equally short time.

### Michelin Gets Reduced Duty on Rivets.

By an appeal to the Board of United States General Appraisers, the Michelin Tire Co., of Milltown, N. J., has obtained a reduction in duty on the rivets which it imports for use in non-skid tires. Duty was assessed by Collector Loeb, at New York City, at the rate of 45 per cent., under the provision of the new tariff, relating to "rivets for non-skidding automobile tires." The board granted a reduction to 1¼ cents per pound, as "rivets of iron or steel, not specially provided for." The testimony showed that the rivets, as imported, are in the finished form of an ordinary steel rivet, and are subsequently lathed and case hardened for use in tires.

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## MAKING PROGRESS IN JAMAICA

**One Company Alone Operating 15 Automobiles for Passenger and Height Service—Good Roads Prevail.**

What local trolley companies have done in the way of developing provincial communities may be done by aggressive automobile men, but in a broader way and on smaller capital. The opportunity promises well, and in not a few remote places good American dollars are earning more dollars at profitable rates. United States Consul Frederick Van Dyne, of Kingston, Jamaica, instances one rather suggestive example, showing, incidentally, how the influence of a single enterprise has strengthened the hold of the automobile in that West Indian island.

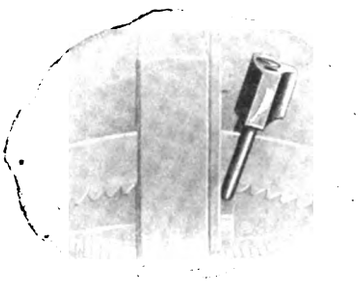
"Until the beginning of the recent touring season there were not more than half a dozen motor cars owned in the island," says Consul Van Dyne. "But with the advent last winter of the Jamaica Motor Car Co.—organized and managed by Americans, although there is some Jamaican capital invested in it—there has been a marked increase in the use of automobiles, and there are now over 25 owned here, besides those belonging to the company. This company has at present 15 cars in service—ten 5-passenger, three 12-passenger and mail cars, and one large truck for hauling freight.

"Besides arranging several attractive tours around the island, the company maintains a regular daily service, carrying passengers and mail between Kingston and Port Antonio. It has the contract for carrying the mails, and runs Pullman motor mail coaches, having seating capacity for 12 passengers, with separate compartments for mail and baggage. With a 60 horsepower truck specially fitted for the purpose it carries freight in parts of the islands not reached by the railroad. The rates charged by the company for carrying passengers over the regular route in the mail and passenger car are 3d. (6 cents) per mile; per day for car, $20; per hour, $4.50. The company has a well-appointed garage where repairs are made and machines, supplies and accesories are sold. It handles only an American motor car. The manager states that the volume of business has exceeded expectations. Another American motor-car firm has a local agency in this city. Motor delivery vans are used by a local bakery establishment.

"There are over 2,000 miles of excellent roads in the island, which are constantly kept in repair by the colonial government. The unusual combination of mountain, ocean and tropical scenery afforded here makes Jamaica a particularly attractive field for motorists. As the country is mountainous and the traffic at times heavy, motors specially constructed for climbing are required. The climate causes exposed metal parts to tarnish quickly, and leather discolors, readily. Any improvements designed to obviate difficulties would prove popular. The number of high-priced cars is not likely to be great. The general demand is for a strong, well-made car of moderate price, not to exceed $1,000 to $2,000."

### Lock that Prevents Theft of Cars.

Motor car thefts are increasing to such a degree that renewed attention is being given to the production of devices for their prevention, and of these an example which aims to combine simplicity with efficiency is provided in the Connecticut automobile lock which the Connecticut Telephone and Electric Co., of Meriden, Conn., is placing



on the market. The lock is applied to the emergency brake lever segment, in the manner shown in the illustration. It goes on the release side, adjacent to the lever. On cars where the clutch is disengaged by the first movement of the lever before the brake is applied, the car can be locked without the brake being applied and with only the clutch disengaged, so that the car may be moved on the garage floor but cannot be operated on the road. The lock, which sells for $1.75, is of the Yale type, made from a solid brass block, and all keys are different. The shackle and steel inserts are hardened so that they cannot be filed or cut. There is no tension on the lock body, because when the lever is brought toward the release position it strikes the shackle, with no strain on the lock mechanism.

### Where Magnificent Opportunities Offer.

"I know of no field in the world today that offers such magnificent opportunities for automobile trade as western Canada," says J. E. Jones, American consul-general at Winnipeg, in the course of a letter to Motor World. "The roads are especially suited for the use of motor vehicles—the long stretches of prairie being particularly adapted to them—while the people of western Canada are prosperous and the farmers are beginning the commercial use of motor driven vehicles." Incidentally, the first automobile show ever hed there is now in progress in Winnipeg.

## TRACKLESS TROLLEYS IN EUROPE

**Although Unknown Here they Continue to Find Favor Abroad—Features of One of Newest Systems.**

Still practically unknown in this country, the so-called trackless trolley continues to thrive in Europe. As has been explained in various reports, this type of motor vehicle, which need not be confined to the omnibus and trolley feeder work with which it generally is associated, has become a paying proposition in some localities, while in others it is run at a loss. Mechanically, considerable progress has been made in its development during the past year or two. At present no less than three distinct systems are in use on the Continent, each of which possesses certain advantageous characteristics peculiar to itself.

The system employed in Italy is the Filovia, which at present is operative for a little over 60 miles. The trolley, which is built on the Cantono system, consists of an ordinary trolley boom fixed to the car by a trolley base similar to the bases used in this country on overhead trolley car lines. The trolley head consists of a four-wheeled truck, affixed to the trolley boom by means of a ball and socket joint. This allows the trolley-head to move easily and to adapt itself to any irregularities in the overhead line. The overhead work, to all intents and purposes, is similar to that for ordinary rail traction, with the difference, of course, that two conductors are employed instead of only one, thus forming a complete metallic circuit with both positive and negative wires. This construction appears to answer admirably, and the trolley shows no disposition to leave the wires at high speeds, or when the vehicle has to move laterally in order to pass other vehicles traveling in the same direction.

In the Mercedes-Stoll system, which is installed in Vienna, motors of 20 horsepower each are fitted in the hubs of the rear driving wheels, so that the motors form an integral part of the road wheels themselves, thus doing away with the necessity for any mechanical transmission. The current is led through the interior of the axle, and the armature of the motor hub is fixed by means of keys on the axle itself, and so acts as the hub of the wheel. The trolley consists of a frame or carriage fitted with four wheels, which runs on the tops of the wires, the current-collecting device being attached to the car by means of flexible cables. A pendulum weight is attached to the center of the trolley carriage to keep the carriage balanced and the wheels well pressed down on the wires. The conducting cable is wound round a small drum mounted upon the chassis, and about twelve

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yards of spare cable carried which can be played out to allow the car to run on the whole width of the road. Four wires are used in Vienna. In other places where only two wires (positive and negative) are employed, when two cars, running in opposite directions, meet, the drivers interchange the trolleys by means of detachable cable contact boxes, the operation usually taking not more than a few seconds.

In the Max Schiemann system, installed at Mulhausen, the trolley is similar to that used on ordinary street railways, with a boom from 14½ feet to 16 feet in length. It is fitted with two sliding contacts, and the car is enabled to deviate for distances of 10 feet on either side of the wires. The overhead work is similar in all respects to ordinary trolley car practice, except that four wires are used.

While thus far applied mainly to regular street traffic transportation purposes, it would seem that the principle might be carried out to good purpose in a number of other ways where regular transportation over stated routes is in demand. Thus the applicability of the railless trolley for industrial purposes in transporting materials about large plants appears particularly apt. The usefulness of the electric motor truck for such purposes is undisputed, but the bulk and weight of the power plant involved in the use of the ordinary storage battery system puts limitations upon its service in many instances.

With a constant source of current supply at hand at all points within the transportation zone, the rolling stock can be built and equipped much more cheaply than where batteries are to be carried, and also with a more economical ratio of load weight to vehicle weight. Circumstances alter cases, of course, and the limited radius of the trolley-fed electric automobile would seem to render it useless in many respects. Nevertheless, it doubtless will be found in the course of time that under certain circumstances it will yield better economy than the more familiar and independent form of machine.

### Quakers Propose a Truck Contest.

For the purpose of showing how much it costs to haul a pound of merchandise from Philadelphia to Atlantic City and back, it is proposed to inaugurate a commercial vehicle contest between those points, in which entries from both manufacturers and users of automobiles of this class will be welcomed. Although the project is being fostered by a Philadelphia newspaper, the Quaker City Motor Club also is interested in it to the extent of lending the use of its name and the services of its secretary, Harry Harback, in the enrollment of entries. Rules embodying a number of novel conditions are being framed, and the American Automobile Association has granted a sanction for the event for August 12 and 13.

## WATER AS AN ENGINE FUEL AID

### Possibilities It Presents in Contributing to the Power Result—Difficulties of Securing Intended Effects.

Motorists who have experimented with an ordinary carburetter by squirting a few drops of water into the mixing chamber by way of the air port, frequently are moved to ask why it is that gas engine makers continue to ignore the apparent possibilities of using water in the cylinders. For it is a well known fact that small amounts of water injected into the cylinder cause the motor to accelerate momentarily and give just about such a response as is to be expected when a poor adjustment of the needle valve is remedied.

As a matter of fact, considerable experimenting has been done in the way of water injection to the cylinders; the idea, indeed, dating well back toward the days when surface carburetters were in vogue. Save in large stationary engines, however, no practical development of the sort ever has been made. Indeed, the only recent suggestion looking at all in the same direction is the rather vague recommendation of one expert to the effect that water injected into cylinders which are badly carbonized will have the effect of breaking up the carbon cake and assisting in its disintegration and expulsion from the combustion chamber.

Those who have studied the action of water in the internal combustion engine at all closely point to a number of results which might be expected to occur were arrangements made to inject water into the cylinder in connection with each charge of gas. What would occur, of course, would depend a great deal upon the amount of water used, the exact time of the injection and the ruling temperatures. With relatively large amounts of water, for example, the effect would be to cool the burning gas so rapidly as to rob it of its energy early in the stroke and so to detract from the power of the engine. Smaller quantities of water, or higher relative cylinder temperatures, on the other hand, would result in the generation of steam. If properly regulated and timed, the effect of this steam generation might be to alter the shape of the expansion curve and by reducing the initial pressure and increasing the pressures through the mid-stroke region, serve to decrease the range of temperatures and pressures to be withstood by the cylinder without altering the mean effective pressure of the stroke. Such an effect, if obtainable, would reduce vibration, permit higher torques to be obtained at low rotative speeds, and reduce the stresses on the moving and fixed parts of the motor.

What ordinarily is contemplated in connection with the use of water in the cylinders, however, is the generation of water gas, and the use of that gas in raising the pressure operative during the working stroke. Steam when subjected to intense heat tends to dissociate, or break down chemically, its component elements separating or forming with other elements new compounds. It is in this way that water gas is formed in the presence of heated carbon, carbon monoxide and hydrogen being the principal resultants. Water gas is combustible and capable of giving off a great amount of heat. Therefore, it is urged, its generation even in very small amounts within the cylinder of an engine would have the effect of adding to the pressure and so of increasing the power.

The fact that it would be difficult to secure such action without robbing the burning fuel mixture of more heat than would be regained by the breaking up of the steam, probably is one reason why no more attention has been paid to the subject hitherto. Another reason is that at present there is but slight demand for highly scientific methods of increasing the efficiency of the small gas engine. It is cheaper to use more fuel to get more power than it is to devise and construct new machinery with the object of extracting a small increment of additional energy out of the original volume of fuel gas. It is certain that a very little water introduced into the cylinder tends to increase the power. But the difficulty of regulating the amount properly and of securing the desired effect regardless of speed and load conditions constitute too great a problem for the carburetter maker of the day to bother with, since he is not directly called upon to do so.

### Weather's Effect on Tire Inflation.

Motorists who aim to always keep their tires properly inflated and thus secure the greatest mileage and best service generally should not fail to reckon with weather conditions.

"On account of air contraction and expansion, tires pumped up sufficiently on a hot day may be too flat in cool weather and vice versa," says Jas. A. Braden, of the Diamond Rubber Company. "Before starting out with the full load aboard, the automobile owner should always make sure that his tires stand up firm and round," adds Braden.

### Effect of Large Tires on Drive Ratio.

Advantages offered by large tires may sometimes tempt a motorist to alter the equipment of his car by adopting larger pneumatics than the regular specifications call for. In making such a change, however, it should be borne in mind that increasing the effective diameter of the rear wheels has the effect of reducing the gear ratio. A car with larger tires, therefore, should not be expected to prove quite as lively a hill climber after the change is made as it was before.

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## RIDDING CYLINDERS OF RIDGES

### Grinding and Lapping Do Away with the Tool Marks—Method by which Smooth Surface is Obtained.

"All cylinders are ground and lapped in," says the salesman; "and so are the pistons and rings."

The prospective automobile purchaser listens attentively to this, as to all the other details which go to make up the verbal explanation without which it is impossible to buy anything from a wheelbarrow to an air-ship. But the chances are about ten to one that unless the "prospect," as the salesman terms him, happens to be thoroughly familiar with advanced manufacturing methods in the machinery line, he might just about as well have told him that all seams in the cylinder were double sewed and bound with the best heavyweight braid.

As a matter of fact, only the relatively few people who have had direct manufacturing experience or long familiarity with the processes involved in the construction of gas engines are able to appreciate the import of the salesman's remarks about the method of finishing the cylinders. About all the information that he succeeds in conveying is that something is done to the cylinders that is enough out of the ordinary to be thought worthy of mention and that, somehow, is supposed to have a direct bearing on the performance of the machine on the road; that it is subjected to a finishing process which is supposed to improve the engine action.

And that is just what lapping does. For it is nothing more nor less than a refinement of the finishing process, which renders the cylinder bore and the piston and ring surfaces smoother so that less clearance will be required between the piston and cylinder. This, of course, means that less leakage will take place during the working stroke, and it also means that there will be less engine friction to be taken care of. The polishing of the cylinders, which is what lapping really amounts to, also is of material assistance in the matter of lubrication; by providing a smooth surface for the lubricant to spread over it assists the oil in separating the surfaces and keeping them cool.

In order to understand why, in the more carefully constructed and fitted engines, it is thought necessary to submit the cylinders and pistons to a finishing process after they leave the boring mill, the nature of the boring operation itself should be considered. Unlike an operation of the same name which is carried on in wood by means of an auger or gimlet, boring, as the machinist understands the term, implies a reversal of the turning operation. If it be possible to imagine a common engine lathe turned "inside out," with the tool revolving inside the work, a fair conception of the type of boring mill upon which cylinder castings are machined will be obtained.

The rough castings, after being inspected, roughed over with a coarse file and set up in a special clamping device or "jig," are mounted in the mill in such a way that the boring bar can work inside them. The boring bar, so-called, consists merely of a shaft or mandrel carrying a cutting tool, much like the diamond-nosed lathe tool. As the boring bar revolves, the point of the tool describes a true circle within the cylinder. As the tool rotates, however, it gradually is made to travel from end to end of the cylinder, so that at the end of the cut the cylinder wall is lined with a fine helical groove, which forms an almost imperceptable screw thread from one end of the bore to the other.

With the second and subsequent cuts, if more than two are taken, the depth of the grooves is reduced and their number is increased, because the depth of the cut is reduced for the finishing process and also the rate of feed from end to end of the work is reduced. Nevertheless, after it leaves the boring mill the wall surface of the cylinder always presents this fine grooved effect, even though it be almost imperceptible to the eye.

Tiny as these ridges may be, it is desirable to do away with them, because their presence tends to prevent the smooth run of the oil from end to end of the bore and also to prevent the piston and rings from being made as close a fit as otherwise would be possible. Hence, it is desirable to render the surface even smoother than it is possible to render it by means of a regular cutting tool. At the same time, it is equally important that the surface shall be maintained absolutely cylindrical; that is, a perfectly true circle at every point, and absolutely straight sided from one end to the other.

Therefore the grinding process is brought into service for the next step. This consists in mounting a small emery or carborundum wheel on a shaft which is mounted little off the center of a heavy mandrel or boring bar, which, in turn, can be made to revolve. By suitable means, the cutting wheel is driven at high speed and the bar upon which it is mounted is both rotated and fed from end to end of the cylinder. The effect of this treatment is to cause the cutting wheel to grind the entire surface of the cylinder, and to reduce the ridges left by the cutting tool; leaving instead a much greater number of still finer and more irregular ridges, which are formed by the hard particles of emery or carborundum.

The resulting surface seems to the senses of sight and touch to be "dead" smooth. Indeed, many engine builders consider it smooth enough for all practical purposes. Examination under the microscope and long experience with bearing surfaces which have been ground in this way, however, reveal the fact that even this apparent refinement of what is to all intents and purposes extreme accuracy, is not quite flawless.

In the first place, unless the grinding is done with extreme care, the grade of the wheel properly selected, the speed of cutting and depth of the cut properly determined, and if the walls are not thoroughly cleaned afterward, trouble may ensue. Fine particles of the emery may become embedded in the metal to continue the cutting action after the cylinder has gone into service. Or, the grinding action may be somewhat irregular and so destroy the truth of the surface, or the mandrel may spring, thus causing the cylinder to be ground out of shape. Similar difficulties may follow the grinding of the pistons and rings, which is carried out by similar processes.

So, for extremely accurate work, lapping is resorted to. Originally, lapping consisted in working into the surface of a part, such as a bearing, fine particles of lead or some soft metal alloy. This was done by rubbing a bar of the lead against the surface which it was desired to render smooth, while the latter was revolving at high speed. The effect was to fill in all minute depressions in the harder of the two metals, leaving its surface velvety and in fine shape to take the lubricant. More recently, the term has been applied to one process of grinding in two or more surfaces which are to work together in regular service. Thus, in gas engine work, the lapping of the pistons and cylinders corresponds very closely to the grinding in of the valves.

After the cylinder and piston, together with the rings have been reduced to the finest possible surfaces by means of turning and grinding, the engine is assembled and turned over by power applied to the crank shaft. At the same time a small quantity of some very fine abrasive material is dumped into the cylinder and permitted to work with oil or water between the rubbing surfaces. Sometimes very fine emery powder and oil is used, sometimes nothing harsher than Sapolio and water. Sometimes, even, it is thought that best results can be obtained when only kerosene oil is worked into the cylinder, no abrasive material whatever being employed.

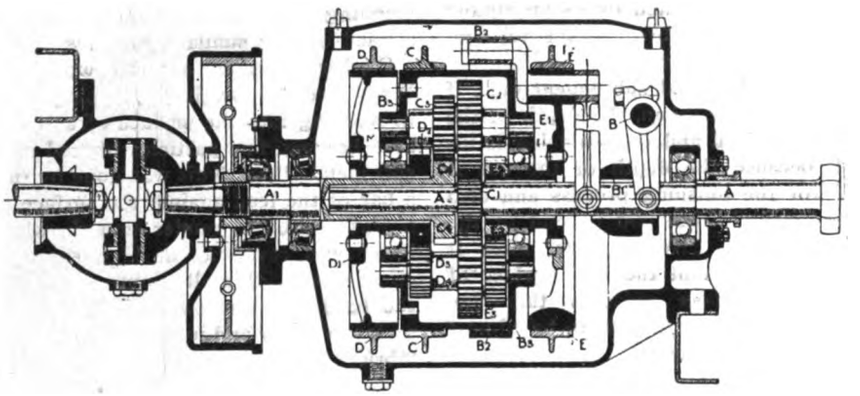
Naturally enough, the practice of different makers varies considerably in this, as in respect to other manufacturing processes. The quality of the iron used in the cylinder castings, as well as in the pistons and rings, has an important bearing on the question of finish. So does the price of the finished product. But whenever the grinding and lapping of cylinders is referred to in connection with a particular machine, it is reasonable to suppose that the best of care has been lavished upon its construction and that, other things being equal, it should run as smoothly even while new as a seasoned motor which has seen long service.

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## ONE PEDAL CONTROLS GEAR CHANGE

### Selective Transmission that Does Away with Hand Levers—Embodied in an English Maker's Product.

All pedal control for the change gear is a feature which is held by many authorities to be of great value in a car which is intended for all around service, particularly if it is to go into the hands of unskilled drivers. In this country where the idea has been applied, the tendency has been to use two or more pedals. An English manufacturer, who long has been a staunch adherent of the "epicyclic" gear, as it is known locally, just has introduced a novelty in the form of single pedal control for all speeds; the pedal having selective movement, and being guided by a grid-iron segment. As applied to pleasure cars, it is held to be particularly advantageous, since it does away with the side levers and thus permits uniformly easy access to either side of the car.



NEW SELECTIVE PLANETARY CHANGE GEAR SET

The maker in question is the Adams Manufacturing Co., and the new control system has been developed in connection with a new four-cylinder model of the Adams car, which is equipped at the option of the purchaser either with the new planetary system or a conventional sliding pinion change gear. Indeed, it is a noteworthy point in connection with the design of the transmission, that it is enclosed in a gear box of so nearly standard form as to be readily interchangeable with the standard type of sliding gear. In other respects as well the gear is well worthy of study.

As the accompanying illustration shows, the entire mechanism revolves in oil within the fixed outer casing. It also will be observed that, following the practice of one American maker, since abandoned, the gear is designed to afford three forward speeds in addition to the reverse. As with the average sliding gear at the present time, the intention is for the bulk of the running to be done on the high gear. This, of course, affords a direct drive, with all parts revolving as a unit. For this purpose, the driving shaft, which is connected to the master clutch by means of a flexible coupling, is clutched to the propeller shaft by means of the brake band B2. This connects the shaft A-A1, when the transverse shaft B is rocked, thus causing the cone B1 to slide on its feather key and force apart a pair of lever arms which are pinned to the casing E1. By gripping the drum B3, while the remaining three bands, C. D and E are free, the entire mechanism is made to revolve as a unit.

Band C is used for the second speed, bringing into action the pinions C2-C3, which mesh respectively with gears C1 and C4 on shafts A and A1, respectively. The reduction gearing, it will be observed, is of the staunch and approved spur type, which is simple to construct and reliable in operation. A particularly good feature structurally is the form of brake employed, which is of the double contracting shoe type, applied through a double-acting linkage and so arranged that the shoes are held clear of the drums when not engaged.

In obtaining the low speed the band D is applied to check the spur gear D2, which rides loosely upon the shaft A1 and meshes with gear D3 mounted on a second lay shaft, with a spur connection to the driven gear C1. In reversing, the band E is employed to stop the drum casing E1, which carries the spur E2. As the gear E3 is integral with the lay group D3-D4, the effect is to drive the shaft A1 in the backward direction. It may be added that two lay shafts are employed instead of one as a means of facilitating the control of the mechanism and also to secure balance and uniformity of running.

The control of the gear is vested in the single pedal already mentioned, which is formed with large side flanges on the foot plate, thereby enabling it to be moved to one side or the other in making the necessary selections. When the pedal is pushed forward into either of the three slots in the guide plate it serves to engage one of the forward speeds. The mechanism remains engaged until a second pedal, which corresponds to the usual clutch pedal, is depressed. The first movement of this pedal serves to disengage the master clutch. Further progressive movement of the clutch plate has the effect of releasing which ever of the gears happens to be engaged, by disengaging its controlling band. Moving the clutch pedal to the limit of its travel has the effect of applying the service brake, which is mounted on the propeller shaft in the rear of the change gear. The reverse motion, it may be added, is obtained by moving the side lever, normally used for the emergency brake, in the forward direction.

### Why City Must Protect Taxicabs.

That the city is under legal obligations to protect a taximeter cab company's property during a strike is forcibly made plain by an opinion from the office of the corporation counsel of Chicago, Ill., in connection with an attempt by some of the Chicago aldermen to compel the mayor or the chief of police to withdraw the police guard from the cabs and garages of the companies which at present have a chauffeur's strike on their hands. The city's attorneys called the council's attention to the law which makes the city responsible for three-fourths of the value of private property destroyed by mob.

### Tests for the Suspension Springs.

Suspension springs should be inspected from time to time with the object of discovering possible flaws. This may be done by jacking the frame away from the axles until the leaves begin to separate. The individual leaves then may be "sounded" with a hammer, when any that are cracked or broken at once can be detected. At the same time the opportunity should be taken to lubricate the leaves by inserting between them a thick graphite-grease mixture and working it well in toward the center.

### Neat Manipulation of Split Pins.

Heedless and slipshod tendencies on the part of the chauffeur may be detected by the habitual use of split pins, which are either too small or too long for the parts in which they are employed, and by the habit of bending the ends flat back instead merely of spreading them sufficiently to prevent them from working out. Neat and tidy manipulation in the performance of ordinary repairs is the test of a good mechanic, generally speaking.

### Brake Systems with Many Joints.

Brake mechanism which is so constructed as to embody a large number of joints, is liable to considerable wear in the articulations. This is particularly true of poorly adjusted linkages involving long equalizers or balance beams. If the parts are subject to rattling, it should be seen to that the inevitable abrasion does not reduce the size and strength of the connection pins to the danger point.

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## MAKING THE MOTOR TRUCK FIT

### Complex Problems Involved and False Premises that Must be Overcome—Room for Transportation Experts.

Adapting the motor truck to the real needs of the user is more or less like fitting a new suit of clothes. With skilful tailoring all may be well from the first try-on; but if the measurements have not been made properly or the buyer's tastes not studied judiciously the prospective wearer may not be pleased and the goods may have to go up in the window tagged "uncalled for." If the buyer happens to be square in the shoulders and reasonable in the requirements of his waistband, it may be he can walk right in and walk right out again in a stock suit. But this seldom happens; some men cannot wear regular clothes and others are pleased with the notion that they themselves cannot wear them.

It will be observed that this has nothing to do with the pattern or texture of the fabric, the size of the buttons or the geometric exactitude with which the pattern is cut. It is entirely a matter of fit. And unless there is proper harmony of ideas between the two parties to the transaction it is likely that one or the other of them will express himself as being more or less dissatisfied with the result. Tailors will explain that the whole trouble is that most men do not know just what they should wear, irrespective of what they think they know; and that their work is considerably hampered by the fact that they are forced to devote more or less time to the instruction of their customers in the rudiments of sartorial art.

Commercial motor car salesmen in most cases are prepared to make a similar assertion. The average buyer, while he may be convinced in his own mind that the motor wagon would be a good thing in his line, lacks familiarity with the subject, lacks discrimination, and, most of all, lacks an exact knowledge of what his own requirements really are. Naturally, in the exploitation of as novel a project as the horseless dump cart, for example, a very considerable amount of educational work has to be done. But the really serious difficulty lies not in inducing the conviction that the automobile is a good proposition in a perfectly abstract sense, but in studying out the details of a prospect's business, selecting the type of machine which he requires and teaching him how to use it in an economical manner.

This portion of the commercial vehicle propaganda is even more difficult than would appear. The development of the vehicle itself to a point of commercial economy is a fairly simple matter, in the sense that it is directly progressive work along lines which are pretty well laid, and in the sense that the progress is entirely of and within a single industry. In introducing the business motor vehicle to the needs of the man whose transportation problem is viewed between the tips of a horse's ears, so to speak, it is necessary to gain an exact idea of the working of varied businesses, which is a task fitted only for expert handling. Moreover, there is, as in all salesmanship, the need of solving the human equation in order to make headway with any and every possible customer.

The standard of comparison between motor and animal traction on the highway for a number of years has been the ratio of one to three. One good motor truck will replace three horse-drawn trucks in the same service. This was a sort of fetich with commercial car dealers for a while, until it was found necessary to qualify it. Now they say that this is true, "under normal conditions." The difficulty which made the qualification necessary arose mainly from the fact that most teamsters are accustomed to gauge their loads by the pulling capacity of their teams. Consequently, finding a certain amount of overload capacity in the motor truck, they immediately proceeded to work it for what it was worth. Generally it was worth a breakdown. But the breakdown always was charged to the fallability of the machine; never to the poor judgment of the wagon boss.

It simmers right down to this, that the primary transportation problem has got to be regarded in the same light as the secondary transportation problem. Railroads prosper in proportion to the wisdom, experience and judgment of their directors. They thrive as a result of industrial and commercial concentration—the concentration which they themselves promote. Railroad men have evolved a prodigious industry out of a very elemental commercial incident; the simple need of transporting certain things from places where they are not needed to places where they are in demand.

The railroads and steamship lines enable people to work in towns and live on country produce; they enable the great farms to feed the great cities and the cities to supply the farms with other necessities than food. Themselves originally created to supply a growing need, they have so outrun their justification that now they exert themselves to create a demand for their services. To imagine a state of modern civilization without railroad and steamboat transportation would be about as rude a tax on the builder of Spanish castles as to imagine life without air. The common carriers have become absolutely essential to existence and to the interchanges of commerce. But it is a serious reflection that they are not always used to the best possible advantage.

What is not generally appreciated is that a fault exists in the method of "hooking up" modern transportation and modern commerce. Modern industrialism, especially where conducted on a large scale, is more intimately related to transportation. The wholesale producers buy their coal by the train load and turn the gondolas upside down and shake them to get out the dust, rather than to unload them by the scoopful; they run tracks through their plants and handle all weights by electric cranes and air-lifts; they study the movement of every ounce of raw material and finished product, and count their savings on haulage in fractions of pennies.

But the merchant, the small manufacturer and the jobber, like the retail buyer, rely on human beef to move their stuff; while between the freight house and the store plods the faithful horse. It has been said that 90 per cent. of all freight which the railroads haul is rehandled at one end or the other by horses. And to a large extent unsatisfactory conditions in freight haulage, shortage of cars, warehouse congestion and slow freight movement may be charged to this cause. Whatever complaints with justice may be laid at the door of the common carriers, the fact remains that the weak link in the chain of transportation is the link that connects the shipper's platform with the freight yard and the freight yard with the ultimate consumer's kitchen door.

The difficulty with most shippers is that they regard the transportation problem as being entirely in the hands of the railroads. The science of economics teaches otherwise, and so do the experts in factory costs. But it is a difficult matter to show a man who has been long in business that he loses money by not viewing his transportation problem in the right light.

The secret of large industrial benefits is the multiplication of small profits. The transportation problem does not begin at the loading platform any more than it ends at the opposite freight terminal. It begins with the shifting of materials from the store room to the machine rooms, from the machines to the packing floor; and it ends at the consumer's boiler room, his boring mill, his showcase or his breakfast table, according as the case may be.

The commercial vehicle came into being like the railroad, more or less in answer to a real demand. But, like the railroad, it must be dovetailed into the business universe before it reaches its plane of highest value. The motor truck affords means of vast economies in transportation, but its use requires more or less overhauling of systems; its success demands that it be considered not as a substitute for the horse, but as a new form of link in the transportation chain.

In this way the introduction and popularization of the commercial motor is a work for transportation experts. It is an

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engineering problem for specialists. The specialist succeeds where others fail, generally because he is able to magnify small details and to profit by the discoveries which reward his scrutiny. It behooves the automobile engineer who is working along this line not only to suggest the type and teach the mechanical details of operation, but to work out a schedule, plan a loading system, provide against such contingencies as breakdowns, bad roads, unavoidable traffic delays may cause; and finally to see to it that the goods are routed through the works in such a way that they will reach the shipping room in uniform quantities. Furthermore, it is plainly his work to arrange a method of accounting for the work of the motor equipment.

He must organize a transportation department, in other words, in the general manner indicated in these columns not long since in a more general treatment of the subject of advancing the cause of the commercial vehicle. His object must be not to draw close comparisons with the old horse traction equipment, even though such comparison might be favorable, but to show a profit in the new transportation department, show how and where it pays to handle it as a separate problem, and show how inseparably the motor vehicle link is welded into the chain.

How this line of work may affect the direct problem of motor vehicle haulage at once is apparent. For short hauls in city streets one type of vehicle may be desired, also, for long hauls an entirely different style may be necessary. Under certain conditions, as, for instance, where collections or deliveries are to be made at some distance from the central point, it may be that feeder service, with arrangements for rehandling and rehaulage on a trunk line basis would pay better than direct transportation. Roads, stops, speeds, loads, the comparative regularity of the service—all must be taken into account. Sometimes, it might be, the independent traffic man would recommend the use of vehicles hired on a ton-mile basis for one portion of the work as being more economical in operation than machines of a single class or type owned by the shipper. At other times he might see the wisdom of a complete and heavy outlay for vehicles and maintenance plant where superficial consideration would not seem to warrent it.

Everything points to the usefulness of the transportation expert who acts independently of the direct influence of any single manufacturer. This more especially in the case of the operator with large shipments to handle, to be sure, but also true of the small merchant and manufacturer. The field opens opportunities for the development of express and teaming concerns using the motor vehicle in ways vaguely defined at present, but logically evident as probabilities.

The only difficulty is that prospective users of commercial motor cars do not appreciate the need of overhauling their shipping methods in order to get the best out of the business as well as to use the motor to the best possible advantage. Gropingly, they reach a hand to the motor wagon salesman, and if their needs are relatively simple, it is quite likely that they profit by following his advice. If their needs are more complex, however, especially if they fail to grasp the real significance of the transportation problem as it applies to them, they are apt to afford the salesman little opportunity to carry out his educational work or to advise them to their own, and his, best advantage.

Some time the local transportation expert is destined to have general recognition. When that time arrives, his influence will be helpful and strong for the advancement of the motor business vehicle. Until that time, however, the task of the salesman is destined to be beset with difficulties, and, if like the average tailor, he sometimes turns out a misfit, or gets stranded with uncalled for goods, it must be remembered that the fault may not be entirely his. Better that, than that he should be altogether inactive at all events.

### The Gears that Warner Makes.

Setting forth in a concise and comprehensive manner the design and specification features of its product, the Warner Gear Co., Muncie, Ind., just has issued a new catalog. The line includes steering gears of the worm type, with stationary spark and throttle controls placed above the spider; transmissions, in both sliding pinion selective and planetary types; side lever groups, designed for either H-segment or fulcrum change gear lever construction; and differential gears of both the spur and planetary patterns. Each of the four groups of parts is produced in forms suitable for use on pleasure cars, taximeter cabs, light commercial vehicles and trucks. The matter consists of half-tone illustrations of the parts, interspersed with working drawings on which the principal dimensions are shown.

### To Clean the Cooling System.

It is a good plan to flush out the cooling system occasionally by opening all the drain cocks while the engine is running and then turn a hose into the radiator filling cap. The water should be allowed to waste from the system until it is observed to be running perfectly clear and free from the little spurts which indicate the presence of air. To permit dirt to accumulate in the cooling system is rapidly to impair its efficiency.

### Unusual Method of Obtaining Pressure.

Ordinarily it might be supposed that the failure of the hand pump, which is used to replenish the pressure in the fuel tank when the engine is not running, would put the car out of business temporarily, unless there happened to be sufficient pressure in the tank to start with. According to an overseas expert, however, there is still another way of compressing air in the tank short of attaching a tire pump to it. That is to block up the muffler tail pipe temporarily and then crank the motor. In the course of a few strokes of the pistons, sufficient pressure will accumulate in the exhaust manifold and muffler to raise the check valve, thus forcing air into the pressure line and so to the tank.

### Rotary Valves for Two-Cycle Engines.

Discarding the automatic suction valve for admitting the mixture to the crank case, the builders of the Deloche two-cycle engine, a foreign innovation, employ a rotary valve. For the single cylinder unit praiseworthy simplification is effected by the original device of using a hollow crank shaft with radial ports communicating with the carburetter and crank case, respectively. For the two- and four-cylinder motors, this ingenious scheme has been abandoned in favor of an independent rotary valve which, nevertheless, takes the form of a hollow shaft with ports opening into each crank pit.

### How Aluminum Paint is Made.

Aluminum paint, once so popular as a disguise for the rough-finished parts of the cheaper grades of car, instead of being a true paint actually consists of metallic aluminum in finely pulverized form held in suspension in the sizing by which it is made to adhere to the surface to which it is applied. To secure the metal in proper form, air or gas is blown through a mass of it which is in the molten state while at the same time it is agitated violently. In this way a spongy or granulated mass is formed which is readily pulverized and polished.

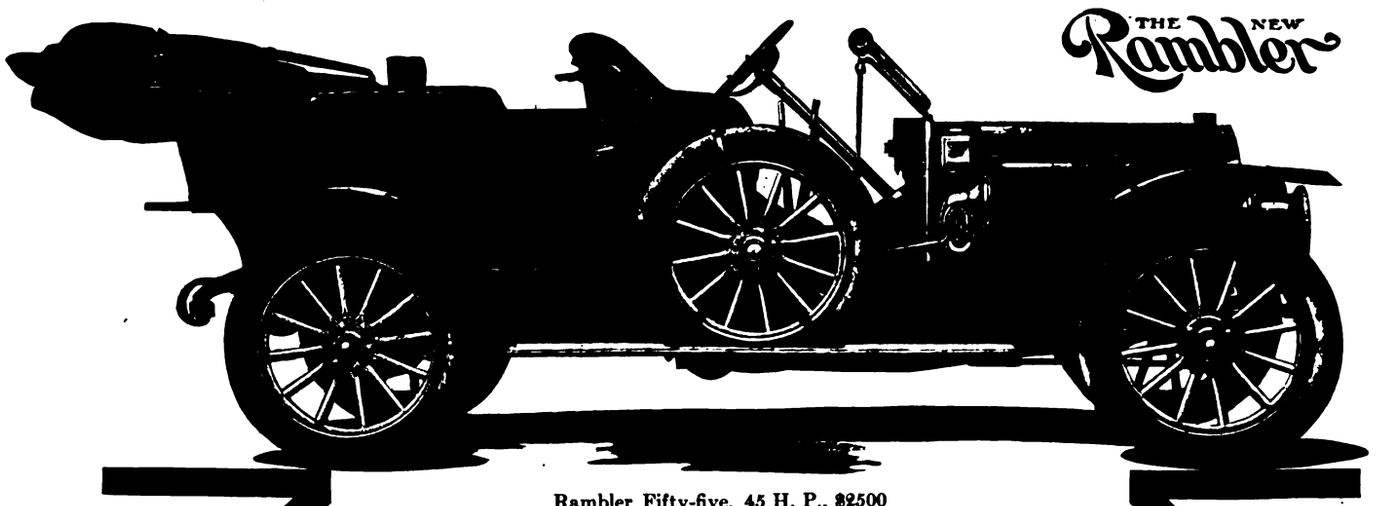
### Novel Provision for Spare Tire.

With the idea of removing the spare tire from the running board a foreign body builder has adopted the plan of arranging to carry it inside the tonneau secured to the back of the front seat. For this purpose a curved depression is formed in the floor parallel with the seat so that the tire casing is afforded a good foothold and is brought down into an unobtrusive position. The arrangement, of course, is applicable only to cars having rather a long tonneau and not encumbered with extra seats.

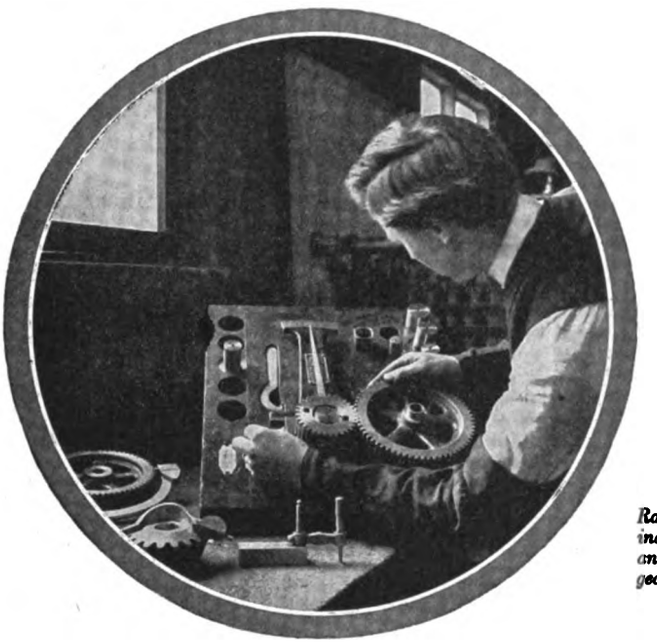
### What P. D. Q. Means in Memphis.

The P. D. Q. Co. is the unusual style of a concern which has been formed in Memphis, Tenn., but its title does not mean what you think it means. The initials stand for "Packages Delivered Quickly," which is the purpose of the concern. It has ordered five Monitor delivery wagons to carry on the work.

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## RECENT PATENTS.

959,957. Protector for Pneumatic Tires. Robert J. Morrison, St. Louis, Mo. Filed Dec. 24, 1909. Serial No. 534,828.

A wire protector comprising transverse inner pliable strips having extensions at both ends formed to provide loops, transverse metal strips overlying the inner pliable strips, a circumferential outer pliable band surrounding all of said strips, rivets passing through the metal strips and connecting the inner pliable strips to the outer pliable band, adjustable draw rings extending through said loops, and buttons secured to one of said metal strips, one end of said pliable band being provided with buttonholes adapted to receive said buttons.

959,978. Steering Mechanism for Automobiles. Cyra B. Wattles, Providence, R. I., assignor to Providence Gas Motor Company, Providence, R. I., a Corporation of Rhode Island. Filed Aug. 3, 1908. Serial No. 446,573.

1. A steering attachment for automobiles comprising in combination with an axle, and a connecting rod, a base block secured on said connecting rod, a bi-branched member pivoted on said base-block, means to oppose the rotation of said member and means to tilt said member against the pressure of said opposing means.

960,072. Explosive Engine Starter. George Burson, Winamac, Ind. Filed Jan. 19, 1909. Serial No. 473,060.

The combination of a motor, a motor actuated shaft, a tank adapted to contain fluid under pressure, means for compressing fluid therein, a motor starting device embodying a cylinder to which the compressed fluid is fed, a rotary piston working in said cylinder and mounted loosely on the motor actuated shaft, a clutch connecting said piston to the motor actuated shaft, a valve controlling the admission of fluid to said cylinder, and a manually operated element acting to simultaneously shift the clutch and valve.

960,080. Carburetter. Thomas J. Fay, New York, N. Y., and John Magee Ellsworth, Bernardsville, N. J. Filed Nov. 15, 1906. Serial No. 343,505.

1. A casing having an air inlet port, an explosive charge inlet port, and an exhaust port, a coil spring surrounding said explosive charge inlet port, a valve rod, a stop on said valve rod for limiting the expansion of said spring, a second coil spring surrounding the air inlet port, a third spring for preventing the expansion of the second mentioned spring until a definite suction pressure exists within the casing, means for varying the tension of the last mentioned spring, and means for varying the position of the stop.

960,119. Automobile Tire. Howard S. Shafer, Nazareth, Pa. Filed May 27, 1909. Serial No. 498,668.

A tire provided with anti-skidding and puncture-proof means comprising a series of rivets molded in the tread portion of the tire with their heads disposed beneath the outer surface thereof and their stems extending flush with the outer surface, and other series of longer rivets arranged in the tread portion of the tire with their heads disposed beneath and alternating with those of the first-mentioned rivets and their stems extending flush with the outer surface of the tread portion.

960,132. Automobile Engine Hood. Alexander Winton and Harold B. Anderson, Cleveland, Ohio, assignors to The Winton Motor Carriage Company, Cleveland, Ohio. Filed Feb. 1, 1909. Serial No. 475,422.

The combination with an automobile engine of the explosive type of a hood inclosing the engine, a water radiator occupying the front end of the hood and having air passages communicating with the interior of the hood, a flexible sheet located at the front end of the hood and outside of the radiator and fitting against the front face of the radiator, a support for the sheet supported by the front end of the hood, said support being in the form of a roller upon which the sheet may be rolled and unrolled, and the sheet thereby caused to either close the front end of the hood or to be removed therefrom to leave it open, and the purpose described.

960,178. Vehicle Spring. Abel M. Kindwall, Minot, N. D. Filed Dec. 29, 1909. Serial No. 535,423.

The combination with a vehicle body and running gear, of a spring pivotally connected intermediate its ends to the body, and links pivotally connected at their ends to the running gear and to the ends of the spring.

960,329. Speed Indicator. Alexander May Hudson, New York, N. Y. Filed July 12, 1909. Serial No. 507,142.

1. In a speed indicator, the combination with a shaft, of a sleeve movable lengthwise upon the shaft, the said sleeve having slots extending lengthwise at one end and upon opposite sides, the said shaft having a pin extending diametrically and engaging the said slots in the sleeve, a body having a central aperture, the shaft and sleeve extending through the said aperture of the body and the body being pivotally supported by the ends of said pin in the shaft, a connecting rod joining the said body and the said sleeve, a spring arranged on one side of the said body and disposed to act against the sleeve and against the ends of the sair pin in the shaft whereby the said body is yieldingly held in an inclined position, and means acting upon the sleeve on the other side of the body whereby the yielding pressure upon the said sleeve is adjusted.

960,530. Muffler. Thomas C. Forbes, Los Angeles, Cal., assignor to Los Angeles Rotary Gas Engine Company, Los Angeles, Cal., a Corporation of California. Filed July 21, 1909. Serial No. 508,855.

1. A muffler for rotary engines comprising a continuous annular chamber rotating with the engine and having a communication with the exhaust port of the cylinder, and having a discharge opening.

960,598. Igniting System for Explosive Engines. Frank W. Springer, Minneapolis, Minn. Filed Nov. 5, 1906. Serial No. 341,971.

1. In an igniting system for explosive engines, the combination with a main timer and an auxiliary timer co-operating to produce a coincident circuit closing arc of contact, each of said timers comprising a rotary circuit closing contact, of a governor operative to adjust the said contact of said auxiliary timer with respect to the circuit closing contact of said main timer, to thereby vary the circuit closing arc of contact under varying engine speeds, substantially as described.

960,601. Carburetter. Alfred C. Stewart, Los Angeles, Cal. Filed Feb. 23, 1909. Serial No. 479,627.

1. A carburetter comprising an oil supup chamber, means for maintaining a definite level of oil in said chamber a well having communication to receive oil from said chamber, an air chamber provided with inlet and outlet means, a throttle valve in said inlet means said outlet means having means for connection to suction applying means, oil communicating means extending into the air chamber in the path of the suction therethrough and extending downwardly into said well to suck up oil therefrom, and communicating means extending from said well to a point in the air inlet at the outside of the throttle, whereby a condition of suction is produced in said well which is less than the condition of suction at the outlet of the oil communicating means, and means for admitting air to the oil chamber for maintaining in the oil chamber a barometric pressure in excess of that in the well.

960,688. Driving Mechanism for Motor Vehicles. Freeman M. Odson, Chicago, Ill., assignor to Commercial Motor Car and Engine Co., Chicago, Ill., a Corporation of Illinois. Filed June 15, 1908. Serial No. 438,482.

1. In friction driving mechanism, the combination of a wheel having a friction surface, a friction pulley operatively connected to be rotated by said surface and mounted for cycloidal movement, means for causing the pulley to be operated in a circular path when it is rotated by said friction surface, and means for rendering the pulley inoperative for circular movement.

960,690. Starting Device for Explosion Engines. Edward N. Pagelsen, Detroit, Mich. Filed Sept. 23, 1909. Serial No. 519,207.

1. In a starting device for multi-cylinder explosion engines, the combination of a carburetter and pump, a selecting valve to the cylinders of the engine.

960,697. Carburetter. Louis Plein, Chicago, Ill. Filed July 26, 1909. Serial No. 509,666.

1. In a carburetter, the combination of a fuel duct therefor; a stationary needle valve stem for said duct; a perforated plate adjustable toward and away from said needle valve; a tubular member yieldingly mounted over said plate; and means connecting the interior of said tubular member with the intake of an engine, substantially as described.

960,752. Spark Plug for Explosive Engines. Joseph P. White, Savannah, Ga., assignor of one-half to Alexander P. Solomon, Savannah, Ga. Filed May 11, 1909. Serial No. 495,291.

1. A spark plug for explosive engines provided with terminals and having a restricted vent passage communicating with the ignition zone of its terminals and a relatively larger gas expanding passage to receive the gas from said vent passage and terminating in a restricted outlet, said passages and outlet being of a size to permit them to remain permanently open to the atmosphere to permit discharge of consumed gases from said zone during the operation of the engine.

960,763. Headlight Controller for Automobiles. Edward A. Adams, Liberty, Neb. Filed Aug. 20, 1908. Serial No. 449,457.

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Renewed March 19, 1910. Serial No. 550,-521.

The combination of the steering mechanism of a vehicle, lamps or headlights, connections between the steering mechanism and the headlights, said connections consisting of pivoted vertical supporting shafts having laterally extending arms provided with polygonal shaped portions to which the lamp yokes are detachably and adjustably secured, crank rods connected to the shafts, horizontally extending rods, universal joints connecting the crank arms and rods, and adjustable clamp connections between the rods and the transverse bar of the steering mechanism.

960,766. Shipping Package. John M. Alderfer, Sharon Center, Ohio. Filed March 15, 1909. Serial No. 483,562.

A shipping package for rubber tires and garden hose embodying a pair of oppositely-disposed heads arranged in spaced relation with respect to each other and each consisting of a ring, a transversely-extending member arranged within and having its ends abutting against the inner face of the ring, hold-fast devices for securing said member to the ring, said member having its inner face flush with the inner edge of the ring, a plurality of slats arranged against the inner edge of the ring and having the ends thereof flush with the outer face of the ring, hold-fast devices for securing the slats to the ring, hold-fast de-


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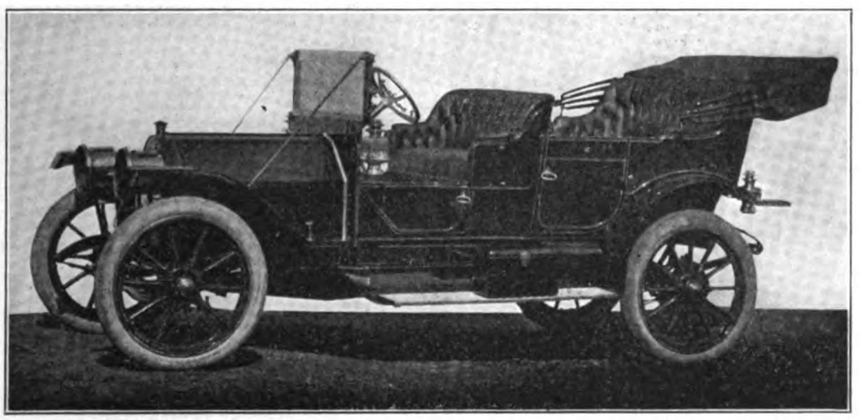
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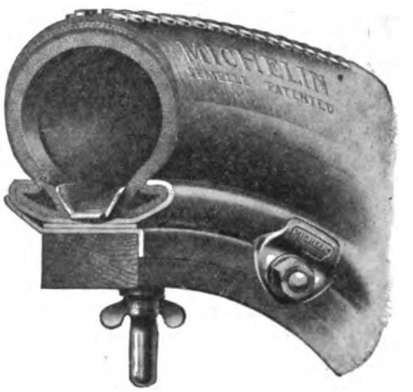


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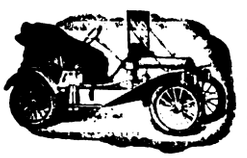

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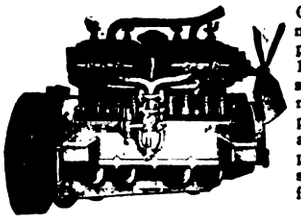
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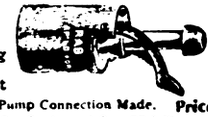
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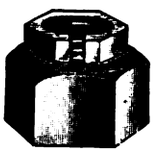
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Used with entire success by many of the leading makers and most of the principal railroads.

*We have an interesting booklet which is yours for the asking.*



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COLUMBIA NUT AND BOLT CO., Inc., Bridgeport, Conn.

LASCO FOLDING GLASS FRONT

Simple, effective, correctly designed mahogany finish wood frame—trimmed in brass—3-16 crystal plates—steel stay rods—bottom of frame shaped to dash of any standard automobile—can be attached easily and quickly. We make the London Tops. Write for details and prices.

LONDON AUTO SUPPLY CO.,
2542 Wabash Ave., CHICAGO, ILL.


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# An International Victor




# The Master Magneto!

(Made in Germany)

**Germany -** **Prince Henry Tour.** Fastest time in Speed Trials made by Herbert Ephriam, Opel—Five and a half kilometers in 2 minutes 26 seconds, or at the rate of 84.8 miles per hour. Perfect score and winner of the Fourth Prize, donated by the Grand Duke of Baden. Final score, 18.96 plus points, only 1.94 plus points behind the point winner, in the six days' contest over 1,944.6 kilometers. First German car in final result, out of 100 German entries; also defeating 123 other starters. Besides which out of the 87 contesting cars that finished at Homburg, 20 of them, or 23 per cent. were also fitted with

**U & H—The Master Magneto!**

**Italy - -** **Targo Florio.** Two Thousand Dollar Sicily Voiturette Cup won by Boillot on single cylinder Lion-Peugeot, time for 186.6 miles, 5 hours 20 minutes 43 2-5 seconds, a new record for the most difficult course in Europe. Guippone and Goux also on Lion-Peugeots finished second and third. Boillot beat the Franco car, the winner in the big car class, 1 hour 3 3-5 seconds. All three of the Lion-Peugeots also beat a Lancia, Fiat and other big cars. Boillot averaged 56.2 kilometers per hour; the Franco only 48 kilometers per hour. ALL LION-PEUGEOTS fitted with

**U & H—The Master Magneto!**

**Spain - -** **Coupe de Catalogne.** Won by Goux, Lion-Peugeot, 210 miles in 4 hours 12 minutes 26 seconds over a ten-mile course of twenty-two laps. Guippone, Lion-Peugeot, second. The field of five also rans, nowhere. LION-PEUGEOTS fitted with the

**U & H—The Master Magneto!**

**France - -** **Coupes des Petites Motos, Marseilles.** M. Escoffier on Magnat-Debon. First with

**U & H—The Master Magneto!**

**Belgium -** **Coupe de la Meuse.** Three First Prizes. Fitted with

**U & H—The Master Magneto!**

**Austria -** **Riederberg Speed Trials.** First in all Classes. Fitted with

**U & H—The Master Magneto!**

**England -** **At Brooklauds.** World's records for Voiturette. Boillot driving single cylinder, 4 x 10, Lion-Peugeot. Flying half mile, 24.8 seconds, an average of 72 miles per hour; 50 miles, 43 minutes 35.9 seconds; 100 miles, 87 minutes 48.5 seconds, and in one hour, 68 miles and 688 yards. All done on a LION-PEUGEOT fitted with

**U & H—The Master Magneto!**

**America -** **Reliability Trials at Harrisburg. Inter-State Cars Victorious in B Class.**

**Yale Hill Climb.** Correja, 1 minute 13 seconds, fastest time. Defeating Buicks, Houpt, Thomas, S. P. O., Stoddard-Dayton, Oaklands, Locomobile, and Chalmers-Detroits.

**Port Jefferson, L. I., Hill Climb.** Correja in $1,201–$1,600 class, 36.24, fastest time. In stock chassis 161–230 cubic inch class, 32.44, second fastest time. Defeated Pope-Hartford, S. P. O., Buick, Knox. CORREJA fitted with

**U & H—The Master Magneto!**

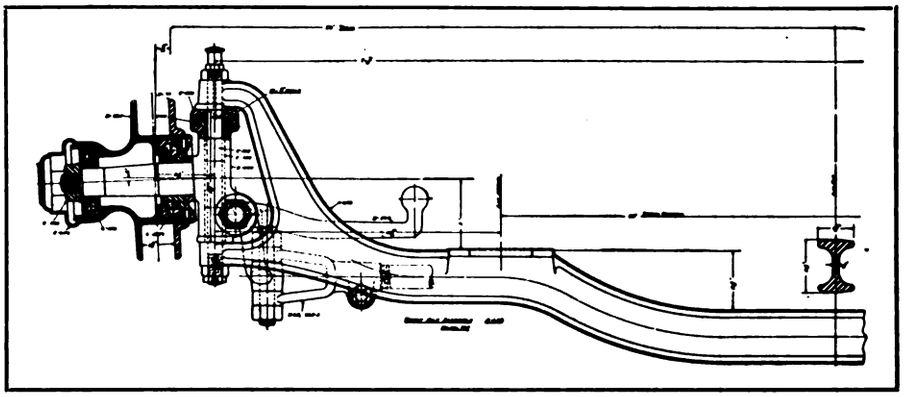
**J. S. BRETZ COMPANY,** Sole Importers, Times Building NEW YORK


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# THE McCUE AXLES

HAVE you seen our one piece steel axle housing? It is unlike any other. It is made right, looks right and is right.

The McCue axles cost more than any others but they are worth more. Every little detail has been looked after from a car-builder's standpoint.

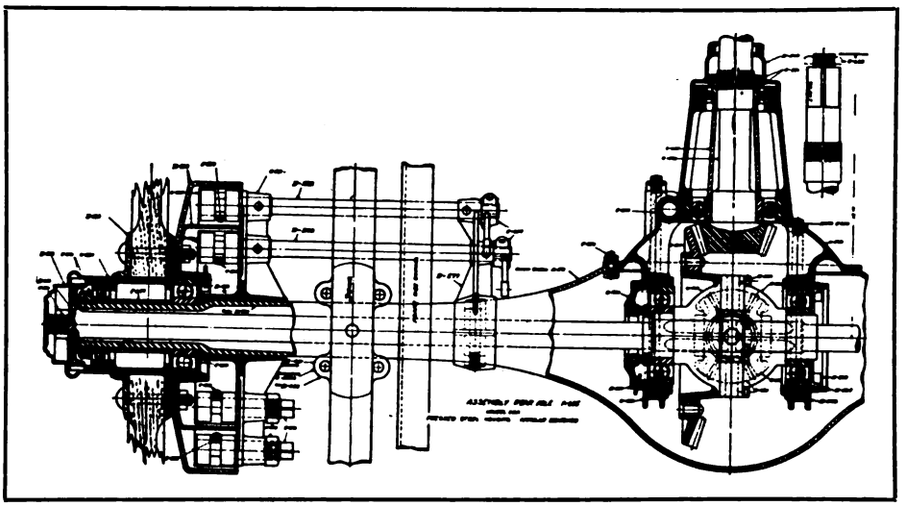


They have real brakes which are easily and quickly adjusted.

The drum bearing surfaces of the flanges are accurately machined. The flange bearing surfaces of the drums are likewise machined making a true running wheel possible, also permitting the use of various widths of spokes.

The pinion shaft and pinion gear are integral and are made of 3½ per cent. nickle steel.

The bearings are imported annulars and of sufficient sizes to carry the load for the weight of car for which the axles are intended with a factor of safety of ten.



These bearings have been tested out with 100 per cent. overload for 110,000 miles and were in good usable condition at the end of the test.

We have both Mercedes and Elliott types of front axles. Let us tell you all about them. Prints and catalogues upon application.

## THE McCUE COMPANY

**Hartford, Conn.**

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# PANHARD OIL

**Lightness of color MAY mean Freedom from carbon and it may NOT—it often means absence of lubricating body.**

PANHARD OIL is manufactured from the best Pennsylvania crude stock. It is of HEAVIER LUBRICATING BODY than any other brand, of equally light color, on the market today, and will not carbonize if properly used.

**Every automobile owner should have a copy of our new booklet "HINTS ON LUBRICATION." Your name and address on a postal will bring a copy by return mail.**

**ADDRESS ALL INQUIRIES TO GEORGE A. HAWS, 76 PINE STREET, N. Y.**

## The LENOX HOTEL

**BUFFALO, N. Y.**



**Highest Grade**

**Fire-Proof**

The ideal hotel for tourists and visitors to Buffalo, Niagara Falls and points on the Great Lakes.

Patrons may take taxicabs or carriages from depots or wharves direct to the hotel, charging same to The Lenox.

**EUROPEAN PLAN**

$1.50 per day and up.

*Ample Garage facilities near by.*

**C. A. MINER, Manager**

IF YOU ARE INTERESTED IN

## MOTORCYCLES

THE BICYCLING WORLD AND MOTORCYCLE REVIEW WILL INTEREST YOU

PUBLISHED EVERY SATURDAY AT
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*$2.00 Per Year* *Specimen Copies Gratis*

## Do You Want Freedom from Worry Regarding Deliveries of Your 1911 Pressed Steel Frames?

Our new factory, which we began operating last November and which is now under full swing, is the largest and best equipped pressed steel frame plant in the world. Our presses have a capacity of over 1000 sets of frame parts per day, which great productive power, coupled with a live, energetic factory organization of long experience and with unequalled facilities for speedy assembling, makes specified deliveries absolutely certain. Send us blue prints of your 1911 frames for quotations.

A. O. SMITH COMPANY, Milwaukee, Wis.


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# The Dayton Motor Car Co.

**Dayton, Ohio**

place the largest individual order ever given for demountable rims. All 1911 Stoddard-Dayton and Courier cars will be equipped with

# THE STANDARD UNIVERSAL RIM

**MANUFACTURED BY**

## The United Rim Company

**Akron, Ohio**

The wholesale adoption of the Standard Universal Rim by representative automobile manufacturers is the best argument in favor of its practical and desirable demountable and quick detachable features.

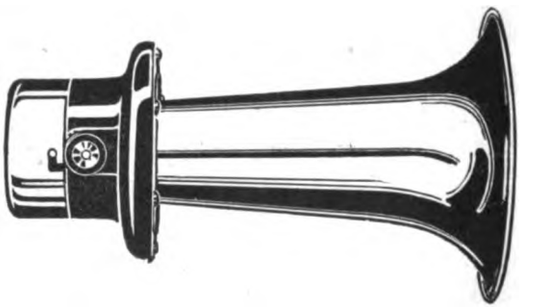
# FITS ALL TIRES


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THE

# MONOPLEX

## Electric Horn



Your car equipped with a MonopleX is a safer and easier car to run.

The mental strain on the man at the wheel is lessened by his knowledge that he controls—without moving either hand or foot—a signal whose warning note is **instantly responsive** to the slightest movement of one finger.

The **"instantly responsive"** feature of the MonopleX is but one of the many valuable points which have been designed into it. You'll realize how valuable it is when you have used it awhile.

Made in two types, for automobiles and motor boats, either type selling at fifteen dollars complete.

**Atwater Kent Manufacturing Works**

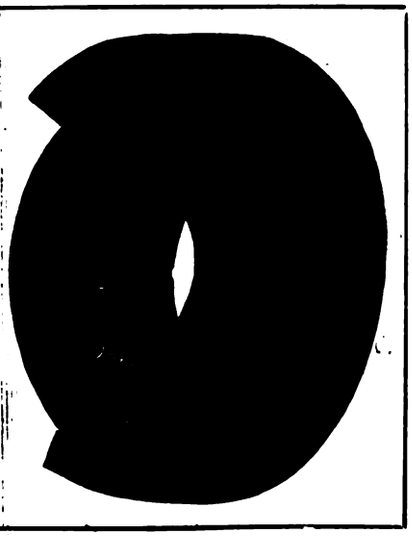
**33 No. Sixth Street** **Philadelphia, Pa.**

**The Pioneers to Employ 92% of Balls in the Raceway**

# SCHAFER

## Ball Bearings

### Fear No Comparison



**Mounting Directions** One Race should have a close sliding fit in its seat; the other should be a slight driving fit. As a rule, it will be best as well as more convenient to have the other race free. On page 14 of our catalogue is a table of press fit allowances that have been found to give a good fit without danger of cracking the inner race. On no account must a hard hammer be used to drive a race home.

The inner or fixed race must be secured on the shaft so as to absolutely prevent any possibility of its shifting endwise. All mountings must be so arranged that no end thrust can (by wrong adjustment) be imposed on a bearing other than intended by the designer, or it will wear out the shaft and damage the bearing. All mountings should fully enclose the Ball Bearings, a space of rather more than half the full width of a bearing should be provided on each side if possible, and on one certainly, and of a diameter nearly equal to or slightly larger than the outer race. The entire load should be imposed on a single bearing. For each shaft size we provide three or four bearings of different carrying capacity to permit this. If more bearings to a single journal, special and more complicated, costly and therefore undesirable mountings must be used to insure a division of the load between several bearings and accord them their intended share. When the application without a drive fit is desired, the bearings are furnished with an adjustable sleeve ring.

*Write for Catalogue.*

SOLE IMPORTERS

**BARTHEL, DALY & MILLER, 42 Broadway, New York City**

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In the year of 1909 we built

**11500 STEERING GEARS**

In the year of 1910 we will build

**25000 STEERING GEARS**

Does not this growing demand prove that:
1—Our Steering Gears are well designed and thoroughly made?
2—Our Deliveries are in accordance with Schedule?
3—Our Customers are SATISFIED?

—LET US HEAR FROM YOU—

**THE GRANT-LEES MACHINE COMPANY, Cleveland, Ohio**

Knox

# Motor Cars Again Winners

**At Port Jefferson, L. I., Hill Climb, June 25th, 1910**

FOUR FIRSTS; THIRD in free-for-all, beaten by 200 H. P. Fiat racing cars. **MODEL "R" 40 H. P.**—FIRST in $2000 to $3000 class; FIRST in 301 to 450 cu. in. class; FIRST in event for amateurs, won by Model "R" Torpedo, fully equipped; THIRD in free-for-all. **MODEL "M" 48 H. P.**—FIRST in 451 to 600 cu. in. class.

**SUMMARY OF TIME**

| | | | |
|---|---|---|---|
| Fiat, 200 H. P. Racer | :20:48 | Houpt-Rockwell, 60 H. P. | :33:95 |
| Fiat, 200 H. P. Racer | :21:30 | S. P. O., 30 H. P. | :33:98 |
| KNOX Model R, 40 H. P. Stock Chassis | :27:61 | Chalmers, 40 H. P. | :35:10 |
| KNOX Model R, 40 H. P. Stock Raceabout | :28:68 | S. P. O., 30 H. P. | :35:33 |
| Columbia, 40 H. P. | :29:30 | Chalmers, 40 H. P. | :35:56 |
| Chalmers, 40 H. P. | :30:08 | Matheson Six, 50 H. P. | :35:93 |
| KNOX Model R, 40 H. P. | :30:46 | Zust, 50 H. P. | :36:00 |
| KNOX Model M, 48 H. P. | :30:64 | National, 40 H. P. | :36:35 |
| National, 40 H. P. | :30:80 | Stearns, 60 H. P. | :36:42 |
| Jackson, 50 H. P. | :30:81 | Chalmers, 40 H. P. | :37:22 |
| KNOX Model M, 48 H. P. | :31:09 | KNOX | :37:25 |
| National 40 H. P. | :31:35 | Stearns, 60 H. P. | :37:91 |
| National, 40 H. P. | :31:84 | Velie, 40 H. P. | :38:92 |
| Pope-Hartford, 30 H. P. | :32:04 | Only | :40:29 |
| Zust | :32:14 | Palmer-Singer, 60 H. P. | :45:44 |
| Pope-Hartford | :32:32 | Thomas, 50 H. P. | :47:13 |
| Zust | :32:66 | Knox Model R, 40 H. P. Torpedo—fully equipped customer's car | :56:69 |
| National, 40 H. P. | :32:91 | Jackson, 40 H. P. | 1:02:72 |
| National, 40 H. P. | :32:97 | KNOX, 30 H. P. Model L—Gasoline tank empty | 1:36:58 |
| Chalmers, 40 H. P. | :33:00 | | |

**Winners of Contests and Customers**

**KNOX AUTOMOBILE COMPANY,** Licensed under Selden patent. **Springfield, Mass.**

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GUARANTEED 5000 MILES

# AJAX TIRES

**A Straightforward Statement of Facts Concerning the Performance of AJAX TIRES on the 1910 Glidden Tour.**

**Driver's Report on Car No. 7—Maxwell.**
(3rd for Glidden Trophy.)

"Drove from the starting point, Cincinnati, through to Little Rock, Ark., without any tire trouble whatever. At this place had one tire cut with a sharp stone and made a change. Two other tires were punctured, causing a change. The fourth tire ran the entire trip of 3,000 miles."

**Driver's Report on Car No. 107—Maxwell.**
(2nd for Chicago Trophy.)

"Replaced only two casings on entire trip. Had one blow-out and one puncture. Could have used this punctured casing further, but to be on the safe side made the change. The two front tires came through all right, bringing the Cincinnati air to Chicago. Drove over 300 miles before starting on the tour, giving a complete mileage for these two tires exceeding 3,300 miles, and the tires are still good for indefinite wear."

**The 3,000-Mile Glidden Tour of This Year Was a More Gruelling Test than the Average Motorist Could Possibly Imagine. The Cars Equipped with AJAX TIRES Had Less Tire Trouble than Those of Any Other Make. AJAX TIRES Show an Average of 2½ Casings Replaced per Car, against 3 7-17 for the Nearest Competitor and 5 11-14 for the Third Best.**

*Remember—AJAX TIRES (both Smooth Tread and Non-Skid) are Guaranteed for 5,000 Miles or 200 Days' Service.*

**AJAX-GRIEB RUBBER COMPANY**
**1777 Broadway, New York City**
**Factories: Trenton, N. J.**
*Branches in Principal Cities*

Pullman

# 1911 Models

## NOW READY FOR DELIVERY

ADVANCE INFORMATION BULLETIN MAILED ON APPLICATION.

CHANGES in 1911 models over 1910 machines are in the nature of refinement of details. In the Model K car the wheelbase has been lengthened from 112 to 115 inches, giving greater leg room between dash and front seats. The tonneaus have been widened to readily accommodate three stout persons. In the Model O car the wheelbase has been increased from 109 to 110 inches. Spring designs have been bettered to afford easier riding qualities. Steering wheels have been bettered to afford easy manipulation of car over roughest roads. The finish on all models has also been refined.

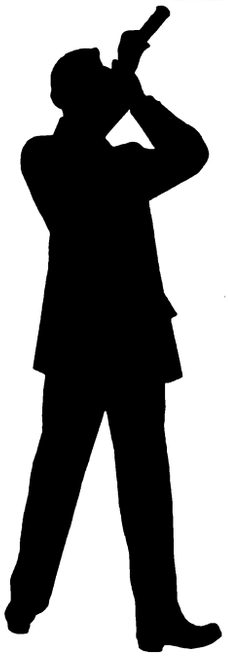
DEALERS: Write for 1910 Proposition. Quick Action is Necessary as Territory is Being Rapidly Closed.

**Pullman Motor Car Co.** York Pa.
Licensed under Selden patent.


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A SPECIAL ANALYSIS SHEET COATED WITH ALUMINUM-ALLOYED METAL



**They're worth looking up, Mr. Auto Builder, Because—**

You cut out time-consuming, output-retarding,, expensive, preliminary work and get down to business in the finishing department, right at the start.

No sandpapering, rust-scouring, pumice-stoning, putty coating or applying of roughstuff. All ALUMALOYD requires for a high and durable finish is a primer, a one-color coat, a rubbing and a finishing varnish.

Honestly, can you beat that? And aren't you beating yourself out of time, capacity and money by loitering along in the old slow way?

Ask for the details NOW.

**THE STARK ROLLING MILL CO.**
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**Canton, Ohio**

Mosler Spit Fire

THE PLUG WITH THE DEEPEST CHAMBER

Leads the World

READ NOTICE! READ

Our SPIT-FIRE Plugs are for sale by all legitimate dealers and jobbers.

If you cannot get a delivery— THERE'S A REASON!

WRITE US DIRECT

WE CAN SHIP ON TWENTY-FOUR HOURS' NOTICE

Dealers and jobbers beware! We protect our trade mark

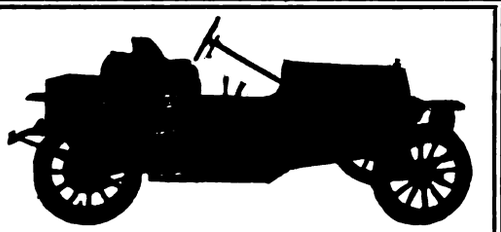
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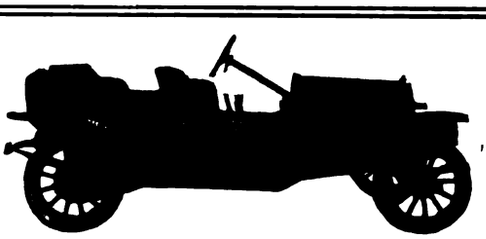
THE PETREL A REAL AUTOMOBILE



ROADSTER—$1,350.
108-in. wheel base, 34-in. wheels, 30 H. P.

PRICE includes Trunk, 2 Dress Suit Cases, 5 Lamps, Generator, Tools, Pump, Jack, etc.

AGENTS WANTED

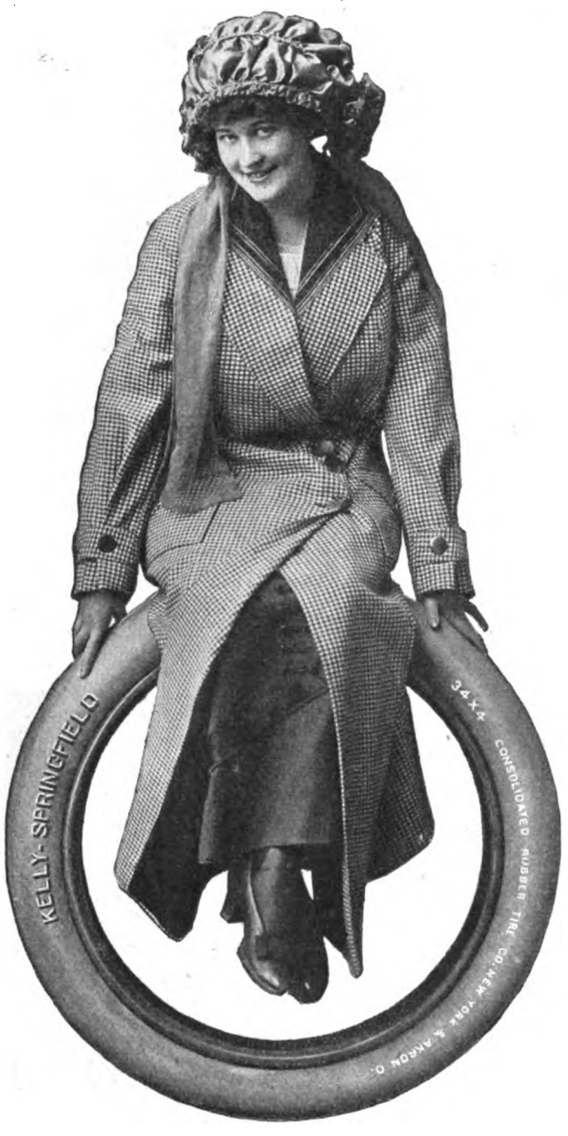


TOY TONNEAU—$1,500.
115-in. wheel base, 34-in. wheels, 30 H. P.

A. M. LLANO, 1590 Broadway, New York

MORGAN & WRIGHT TIRES ARE GOOD TIRES


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## Automobile Tires

There is no getting around the fact that service in an automobile tire does depend on the quality of the tire itself. The quality of the Kelly-Springfield Automobile Tire is the quality of the now world-famous Kelly-Springfield Vehicle Tire.

"Thanks for providing me with tires which allow us to stay in the car and ride rather than to stay on the road and pump."

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**Consolidated Rubber Tire Co.**
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Branch Offices in New York, Chicago, Philadelphia, Boston, St. Louis, Detroit, Cincinnati, San Francisco and Akron, O.

## There Are No Grades in Motor Lamp Service

You either have a perfect lighting equipment under any and all service conditions, or you might as well have none.

For if your lamps are liable to fail or be inadequate at a crucial moment, you can never ride at night with perfect confidence.



**SOLAR LAMPS**



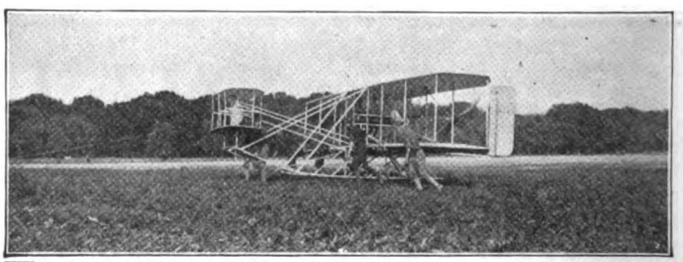
are the motor lamps of quality—used on quality cars.

Most of the high-grade American cars are regularly equipped with them.

They cost more—but they're safe, sure, satisfactory. See that you get them on **your** car.

**Badger Brass Mfg. Co.** Kenosha, Wis. New York City

(88)



(*Photo, Paul Thompson*) Wright machine being moved across the field at Fort Myer

## Get this Booklet Before Buying a Speed-Indicator

It tells you a lot of interesting things about the uses of a speed-indicator to the motorist.

And it tells you a lot about the Warner Auto-Meter, and about the accuracy and reliability under all conditions which have won for the Warner Auto-Meter the proud title—"The Aristocrat of Speed-Indicators."

Unless you have absolute accuracy, you know you are simply guessing, and might as well have nothing.

The Warner Auto-Meter is the only speed-indicating device considered in important tests or races.

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The Warner Auto-Meter

BRANCHES: Atlanta, 116 Edgewood Ave.; Boston, 925 Boylston St.; Buffalo, 720 Main St.; Chicago, 2420 Michigan Ave.; Cincinnati, 807 Main St.; Cleveland, 2062 Euclid Ave.; Denver, 1518 Broadway; Detroit, 870 Woodward Ave.; Indianapolis, 330-331 N. Illinois St.; Kansas City, 1613 Grand Ave.; Los Angeles, 748 S. Olive St.; New York, 1902 Broadway; Philadelphia, 302 N. Broad St.; Pittsburg, 5940 Kirkwood St.; San Francisco, 36-38 Van Ness Ave.; Seattle, 611 E. Pike St.; St. Louis, 3923 Olive St. (70)

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More Power

Less Gasoline

Steady Pull




More Speed

Less Heat

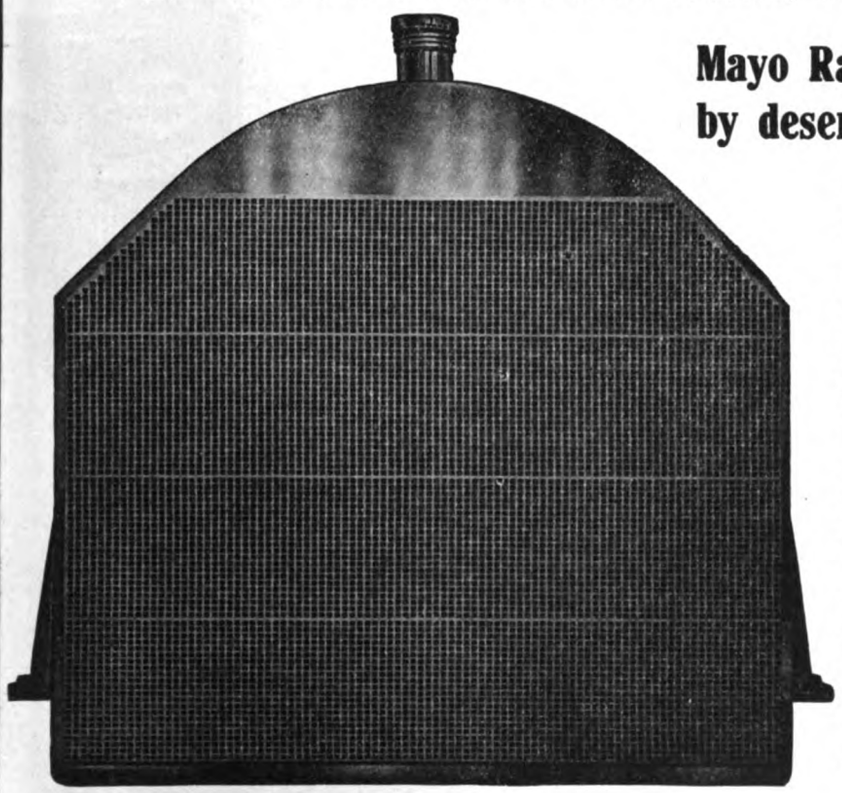
Less Vibration

**MAKES A FOUR CYLINDER RUN LIKE A SIX CYLINDER ON THE GASOLINE CONSUMED BY A TWO CYLINDER**

**THE GREATEST SCIENTIFIC ADVANCE THE GASOLINE MOTOR WORLD HAS EVER KNOWN**
**WRITE FOR DESCRIPTIVE MATTER NOW**

**GASOLINE MOTOR EFFICIENCY CO., Montgomery Street, Jersey City, N. J.**

*'Tis not in mortals to command success, but we'll do more—deserve it.*



## Mayo Radiators have achieved success by deserving it, and in no other way.

¶ Therefore that success is presumably of the permanent and abiding kind.

¶ Price is the cause of the absence of MAYO RADIATORS from cheap cars.

¶ Quality is the reason for the presence of MAYO RADIATORS on most of the good cars.

¶ The only argument against MAYO RADIATORS is their price.

¶ Every other consideration dictates their use.

¶ MAYO RADIATORS combine sound mechanical principles, exact design, construction and workmanship, together with graceful appearance and perfect finish; in short, all the good qualities that go to make the ideal radiator.

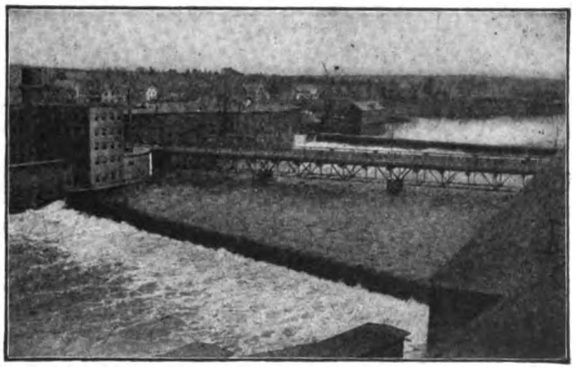
¶ MAYO RADIATORS are stamped with the hallmark of class.

¶ MAYO RADIATORS are really the thoroughbreds of the radiator world.

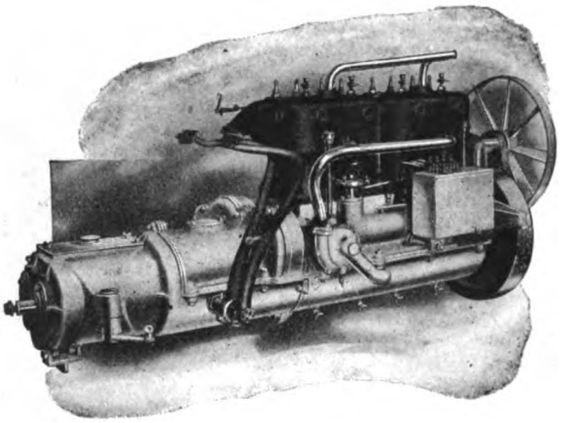
¶ MAYO RADIATORS are made in the kind of a factory that befits them and by the MAYO RADIATOR COMPANY, at New Haven, Connecticut.


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# Stevens-Duryea



The Falls at Chicopee Falls—One of Our Factory Power Plants.



"Unit Power Plant" Supported on "Three Points" of the Model X.

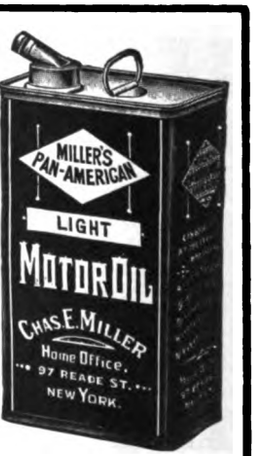
**Each has a tremendous reserve and is equally smooth in its delivery of power.**

*Send for Our Literature—Post Free.*

STEVENS-DURYEA COMPANY
CHICOPEE FALLS - MASS.
LICENSED UNDER SELDEN PATENT




MILLERS PAN-AMERICAN LUBRICANTS




## MILLER'S
# Pan-American Motor Cylinder Oils

are refined from **the finest grade Pennsylvania Crude** and are pure, distilled, highly-filtered mineral oils. **Have a high fire test, low cold test and** not affected by climatic changes. **They are made in three grades** suitable for all types of water and air cooled **Motor Cars, Motor Boats and Motorcycles.** In order to convince you of the efficiency of these oils we are willing to make you a **special price** for an initial order, much lower than usually quoted on other high grade oils.

**WE HAVE HANDLED THIS OIL DURING THE PAST EIGHT YEARS AND DO NOT HESITATE TO RECOMMEND IT TO BE THE EQUAL OF ANY FIRST CLASS OIL ON THE MARKET.**

**Special Prices for Manufacturers, Jobbers and Dealers**

**ADDRESS OIL DEPARTMENT**

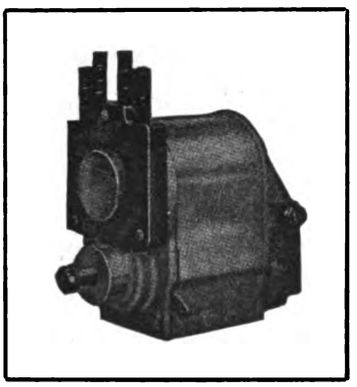
**CHAS. E. MILLER,** MANUFACTURER, JOBBER, EXPORTER AND IMPORTER
**Home Office, 97-99-101 Reade St., New York City**

**The Largest Auto Supply House in America.**

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# Pittsfield



## "Arc Flame System" Magneto

High tension, with stationary, removable coil. No moving wire on the armature. Each spark is followed by an arc flame. This arc flame will ignite a much weaker mixture than with the spark produced by the usual coil ignition. A variation of 45 degrees is allowed on the magneto shaft, which means 45 degrees in the crank shaft for a four cylinder, four cycle motor, as the magneto runs at crank shaft speed.

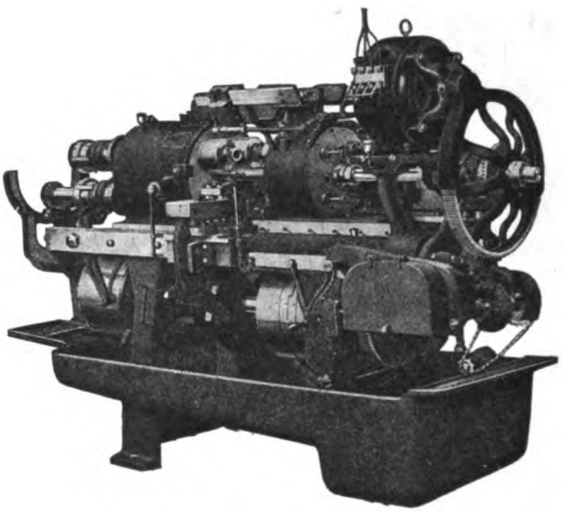
The retarded spark is just as efficient as the advanced spark, making it easy to start the motor with a quarter turn of the crank, with the timing lever fully retarded.

**Get the catalog of the "Pittsfield Ignition System"**

**Pittsfield Spark Coil Co.**

DALTON, MASS.

SALES REPRESENTATIVES—NEW ENGLAND, W. J. Connell, 36 Columbus Ave., Boston. ATLANTIC STATES, Thomas J. Wetzel, 17 W. 42d St., New York. CENTRAL STATES, K. Franklin Peterson, H. V. Greenwood, 166 Lake Street, Chicago. MICHIGAN, L. D. Bolton, 319 Hammond Building, Detroit. PACIFIC COAST, The Laugenour Co., San Francisco.



THE "Acme Automatic" was the first Screw Machine having the Multiple Spindles and Single Drive.

THE purpose of the builder was to make this machine rigid, fast, and labor-saving—to reduce the cost per piece in the manufacture of all kinds of parts from brass, steel and iron bars.

TO do this, practical tests were necessary. So several hundred machines were set to work in the plant on all kinds of jobs for other people.

SINCE that time, the construction and operating departments have worked hand in hand for the improvement of the "Acme" along the lines of speed, rigidity and economy. They have succeeded in making it the lowest cost per piece producer. That's just what the "Acme Way" means—the lowest cost per piece.

THE machine is built in sizes up to 2¼" chuck diameter and 10½" in length.

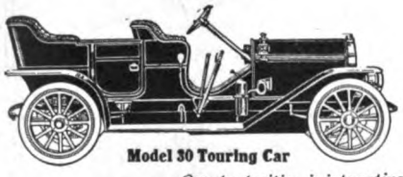
**THE NATIONAL-ACME MANUFACTURING CO.**

**CLEVELAND, OHIO**

NEW YORK, 77 White St.; BOSTON, 141 Milk St.; CHICAGO, 549 Washington Blvd.; DETROIT, 1222 Majestic Bldg.; ATLANTA, Candler Bldg.


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The $1750 Inter State "40"



Model 30 Touring Car

Speedy, Graceful, Easy-Running, Reliable.

Of all the good ones
THE INTER-STATE
is the best in its class,
Refinement of Design, Superior Workmanship and Able Organization Make this Possible.

*Our proposition is interesting to all dealers. Compare our specifications with any high-priced car.* (29)

INTER-STATE AUTOMOBILE COMPANY, Muncie, Ind.
Licensed under Selden patent.




Cramp — Metals

MERCER TOURING CAR
TOY TONNEAU
SPEEDSTER

Each $1950



Style, Luxury, Quality, Strength, Speed.

Made Right and Stays Right

*Let us hear from you*

MERCER AUTOMOBILE CO., Box 126, Trenton, N. J.

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Radiators, Hoods, Fenders, Sheet Metal Parts of All Kinds

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General Offices, Detroit, Mich. Factories, Detroit and Newark, N. J.

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CONTROL LEVERS.
RADIATORS

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Real Radiators
made of individual square tubes so much imitated in appearance, only.

FEDDERS RADIATORS
are just what they appear to be—genuine square tubes. Furnished with tubes "staggered" or Mercedes finish.

You See the Fedders on the Finest Cars

FEDDERS MANUFACTURING WORKS, Buffalo, N. Y.

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High Speed Steel Hardening a Specialty

Case Hardening, Tool Steel Hardening
Heat Treating and Annealing

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Bridgeport, Conn.

7 Strong Wrenches

14 openings from 7-16" to 1¼", or in millimeter sizes from 6 m.m to 25 m.m., put up in a strong kit bag. These wrenches are drop forged of just the right steel, for hard usage. Write for new catalog of auto tools, all drop forged.

The Billings & Spencer Co.
HARTFORD, CONN.




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# CORBIN

FOR 1910

**"Full Jeweled!" A Splendid Car Perfected!**

**Touring Cars, Runabouts and Toy Tonneaus . . $2,750.00**
Including Cape Top, Bosch Magneto and Prest-O-Lite Tank in addition to all regular equipment.

*Write for advance circular H.*

**The Corbin Motor Vehicle Corporation, New Britain, Conn.**
Licensed under Selden Patent.

# Motor Delivery is Young



Now is the best time to get grounded in the trade with a GOOD car—one that has stood the test of hard work. The

**MONITOR**

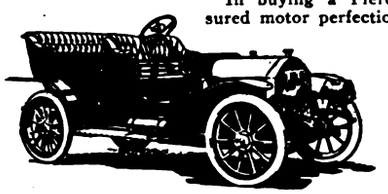
will actually do the work of three horsedrawn vehicles at one-half the cost—this will appeal to the merchant. Write for liberal agency proposition today.

*Designed Right, Built Right, Priced Right.*

**MONITOR AUTOMOBILE WORKS**
214 N. Academy Street, Janesville, Wis.

# Pierce-Racine

**$1750** **The Car with a Famous Engine**



In buying a Pierce-Racine you are not only assured motor perfection, but satisfaction in every way. The body, wheels, springs, upholstering, accessories, etc., are all of a superior quality found only in the high priced American and Foreign makes. Write today for catalog.

**PIERCE MOTOR COMPANY**
111 22nd St., Racine, Wis.

**Investigate This Remarkable**

# $1275 DE TAMBLE

SPECIFICATIONS—4 cycle, 34 h.p.; transmission and engine in a single unit, on 3 point suspension; 115-inch wheel base, 34-inch wheels; 5 passenger touring body; clearance 10¾ inch; top of frame 21 inches from the ground (lowest hung standard touring car in the market); magneto, full lamp and tool equipment.

**A few more LIVE dealers can secure the agency for these QUICK SELLING CARS.**

**CAR MAKERS SELLING CO.,** 1256 Michigan Ave. CHICAGO

# Badger 30 $1600

**112 inch wheel base, 34 inch wheels, quick detachable rims, Bosch dual ignition with storage battery, selective type transmission, Brown-Sharpe gears, F. & S. ball bearings.**



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# $1,600 Cartercar

Model "L," 4 cylinder, 30-35 H.P., 110 inch wheel base, 5 passenger, Friction Transmission, Chain-in-Oil Drive, any number of speeds, will climb a 50% grade with load, including magneto, gas lamps, generator, horn, mats, tools, jack, etc. $1,600.

Model "H," 4 cylinder, 25 H.P., 100 inch wheel base, Runabout $1,100. Double Rumble $1,125 Double Divided Rear Seat $1,150. Miniature Tonneau $1,150.

Write for 1910 catalog.

**CARTERCAR CO.**
**Pontiac, Mich.**
Licensed Under Selden Patent.

# Regal 30

**"The Ideal Car for all Purposes"**

**The only $1250 car with a record of three years of success behind it**

**$1250**

**Runabout, Baby Tonneau, Touring Car, Coupe**

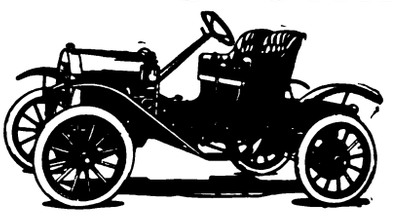
**Greatest Automobile Value in America**

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**REGAL MOTOR CAR COMPANY, Detroit, Mich.**

# EVERYMAN'S CAR

**Seven Models**



**Send for Literature**

**The BRUSH $485.00**

**BRUSH RUNABOUT COMPANY**
**414 Baltimore Avenue, Detroit, Mich.**


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The E. R. Thomas Motor Company maintains a force of traveling experts who periodically call upon every Thomas owner and make sure that his car is in good condition. Let us send you some of the letters from our owners and some of our interesting engineering literature.

E. R. THOMAS MOTOR CO., Buffalo, N.Y.
Licensed under Selden Patent.

**The Royal Equipment Co.**
Manufacturers of
TRADE MARK Raybestos
and
**The Raymond and Duplex Brake**
436 Housatonic Ave., BRIDGEPORT, CONN.

Not a Car of Advertised Value,
But a Car of Intrinsic Worth.
**STERLING**
$1750
Let us send you our Catalog
ELKHART MOTOR CAR COMPANY, Elkhart, Ind.

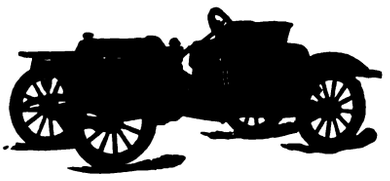
**"RAJAH" SPARK PLUGS**
IGNITION ABSOLUTELY SURE
**RAJAH AUTO SUPPLY COMPANY**
BLOOMFIELD, NEW JERSEY, U. S. A.
(Watsessing Station, D., L. & W. R. R.)

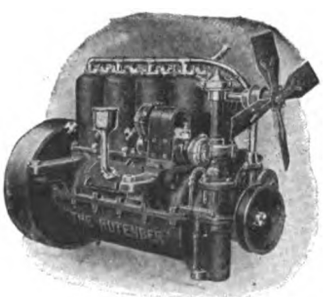
**THE SELDEN CAR**
FOR 1910

| | |
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| 5-Passenger Touring Car | $2,000 |
| 3-Passenger Roadster | 2,000 |
| 4-Passenger Torpedo Tonneau (Magneto Included) | 2,250 |
| 7-Passenger Touring Car (Magneto Included) | 2,500 |

Booklet and specifications upon application.
AGENTS WANTED IN UNOCCUPIED TERRITORY.
SELDEN MOTOR VEHICLE CO.
GEO. B. SELDEN, President, - ROCHESTER, N. Y.
Licensed under Selden patent.

The only car of established reputation selling at a moderate price.
**HAYNES**
$2000
Station C, KOKOMO, IND.
Licensed under Selden Patent.

**K-R-I-T**
"The car with the invisible start."
96 in. wheel base
32 in. wheels
22½ H. P. $800
Sliding gear transmission. Multiple disc clutch. Weight, 1200 lbs.
Runabout $800.
Roadster $825.
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Write for Catalog
K-R-I-T Motor Car Company
DETROIT

**Only a Few Left** Our Entire Output Practically Sold for 1911

Rutenber Motors
SELL THE CAR
Silent, reliable and durable. None can be made any better. None are made any better.
4 cyls. 4 x4
4 cyls. 4½x5
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Self contained oiling system. Magneto attachment.
WESTERN MOTOR CO.
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25 H. P. PLANETARY TRANSMISSION
Showing Both Cone and Disc Type Clutch.

Steering Gears
Transmissions
Differentials
Clutches
and
Control Levers

## SERVICE and SATISFACTION
are assured when
## G&J TIRES
are used.
**G & J TIRE CO., Indianapolis, Ind.**
We Sell Continental Demountable Rims.

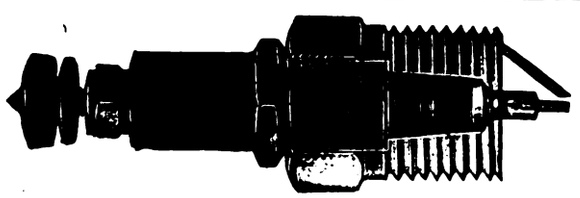
THE MOST POWERFUL COMPOUND PUMP
## "STAPLEY" TIRE PUMP
MADE BY BRIDGEPORT BRASS CO.
Price without Gauge, $5.00. Price with Gauge, $7.00
If your dealer doesn't carry it, we will send the "Stapley" prepaid in the U. S. on receipt of price.
**BRIDGEPORT BRASS COMPANY**
110 Crescent Ave. BRIDGEPORT, CONN.

## CYLINDER CASTINGS
When so many of the leading manufacturers of high grade cars place their contracts for cylinders, pistons, etc., with one foundry, it is because they have satisfied themselves that the quality, deliveries, and service are the best. Why not grant us the opportunity of convincing you also?
THE MANUFACTURERS FOUNDRY COMPANY
Waterbury, Conn.




## A Real Battery
AT A REAL BARGAIN
We have on hand a number of 6 v. 60 amp. dry type storage batteries, built for us by one of the best known manufacturers. These batteries were built to sell at $26.00 and are worth the money, but as we have accidentally become overstocked, we offer them while they last at $12.50.
No better battery is built or sold at any price.
**EXCELSIOR SUPPLY CO.** (*Estab. 1876*) Randolph St. Bridge CHICAGO, ILL.

## Standard Equipment
means the best in automobile accessories. They eliminate trouble, reduce cost of upkeep and make motoring safe, comfortable and enjoyable.
Jones Speedometers
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UNITED STANDARD EQUIPMENT MANUFACTURERS — WE PROTECT THE DEALER, THE OWNER AND THE CAR
Sent-Proof Spark Plugs
Automatic Windshield
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Non-Fluid Oil
**UNITED MANUFACOTURERS, Inc.** 250 West 54th Street, New York

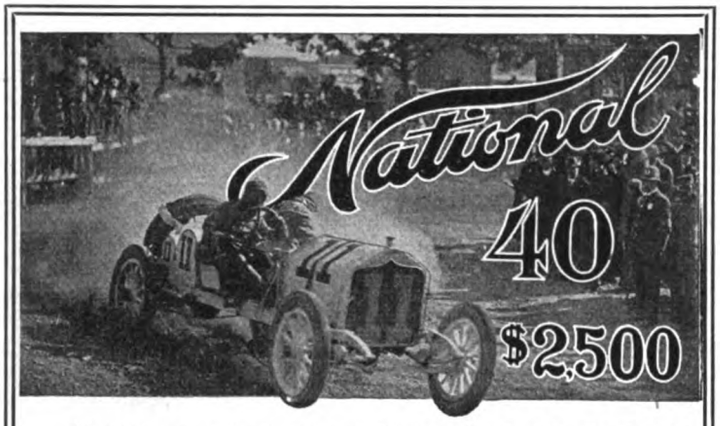
## SPARK PLUGS and TIMERS

No. 2. Mica and Porcelain Interchangeable
Made of the finest materials and most accurate workmanship, they give the right results. Write us.
(Please get the name right)
**AUBURN IGNITION MFG. CO., Auburn, N.Y.**

When in Detroit stop at
## Hotel Tuller

Automobile Headquarters.
Absolutely Fireproof.
Every Room Has Bath.
Rates $1.50 up.
In the Center of the Business District Facing Beautiful Grand Circus Park.
Finest Grill Room in the City.
Our Grand Roof Garden Cafe Opens June 1st.
Vocal and Instrumental Music.
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# Empire Tires
## WEAR LONGEST
EMPIRE TIRE CO., Trenton, N.J.




Won biggest stock car event at Atlanta, May 7—200 miles for the Atlanta Automobile Association Trophy.

Won biggest stock car event at Indianapolis Motor Speedway, May 27—100 miles for the Prest-O-Lite Trophy.

Followed these winnings with 2 firsts, 8 seconds and 3 thirds at Indianapolis Motor Speedway, July 1, 2 and 4.

National 60 won the five miles free-for-all at Indianapolis, July 2, defeating Robertson in his Simplex and a strong field of other big cars.

Won second in the twenty miles free-for-all, July 4, defeated only by special Benz.

The National 40 won the strenuous three-day St. Louis Reliability Run over 418 miles of miserable Missouri roads. Thirty started—five finished with perfect score, and of these five National received the lowest technical penalty.

No car of equal size, beauty, power and service at near the National price of **$2,500**

**National Motor Vehicle Co.** 1007 E. 22nd St. Indianapolis, Ind.

Licensed under Selden patent.

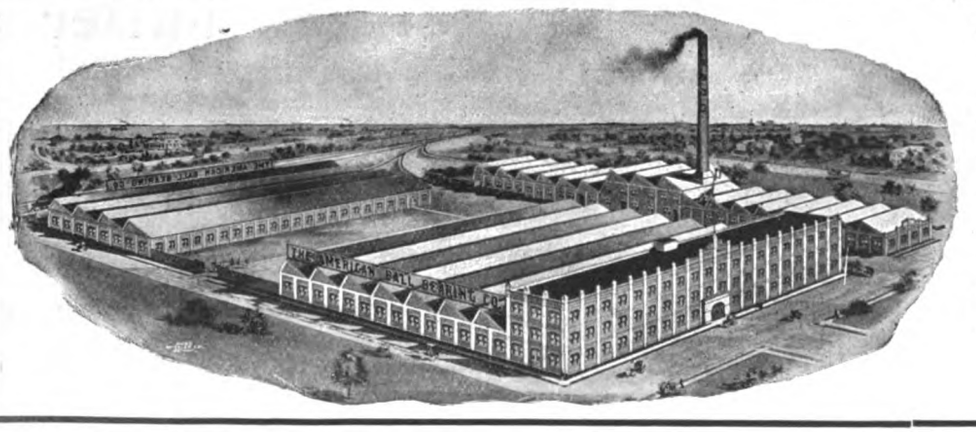
# WETHERILL FINISHED CASTINGS

¶ Die cast from Parson's white brass make the finest kind of engine bearings.

¶ Absolutely accurate and every one interchangeable.

¶ We are now making 25,000 bearings per day, and increasing output as rapidly as possible. A case where quality is recognized and put to use.

**WETHERILL FINISHED CASTINGS COMPANY**
PHILADELPHIA, PA.



THE OUTPUT of complete Front and Rear Automobile Axles of this plant exceeds the capacity of all competition combined.

**The American Ball-Bearing Company**
L. S. & M. S. Ry. and Edgwater Park
CLEVELAND, OHIO, U. S. A.


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# Here Is Our Great Utility Model!
# 30 H. P., 4 Cylinders, Detachable Tonneau

Shown in the above illustration with Tonneau detached. No more convenient, useful and economical car has ever been produced. This Maxwell will appeal to even more people than do the Maxwell 30 H. P. 5-Passenger Touring Car and the Maxwell 12 H. P., Runabout. It is a BIG CAR, having the same long Wheel-base (110 inches) as our big Touring Car, and the same big wheels and tires (34 x 4 inches).

**Its Utility** With Tonneau detached it is a big, smart, powerful Roadster for two people. When friends are to be entertained, it can be transformed IN THREE MINUTES into a 4-Passenger Touring Car. Without Tonneau there is ample room for carrying trunk, grips, etc.

**Its Economy** Maxwell economy is famous. We were the first manufacturers to give the public ACTUAL FIGURES showing the exact cost of maintenance. We are still the ONLY manufacturers whose figures show you the TOTAL cost of maintenance.

**If you did not see our recent announcement showing you in EXACT FIGURES just how little it costs to run the Maxwell 5-Passenger Touring Car 5,000 miles a year, write us and we will send you a copy—also catalogue and other booklets of FACTS. Send postal—just say "MAIL FOLDER AND BOOKS."**

**Sale of Maxwells to Date**

| | |
|---|---|
| Sold to May 31, '10 | 29,545 |
| Sold during June, '10 | 2,243 |
| Maxwells in use today | 31,788 |

**Watch the Figures Grow**

## MAXWELL-BRISCOE MOTOR CO.

**VALE STREET, TARRYTOWN, N. Y.**

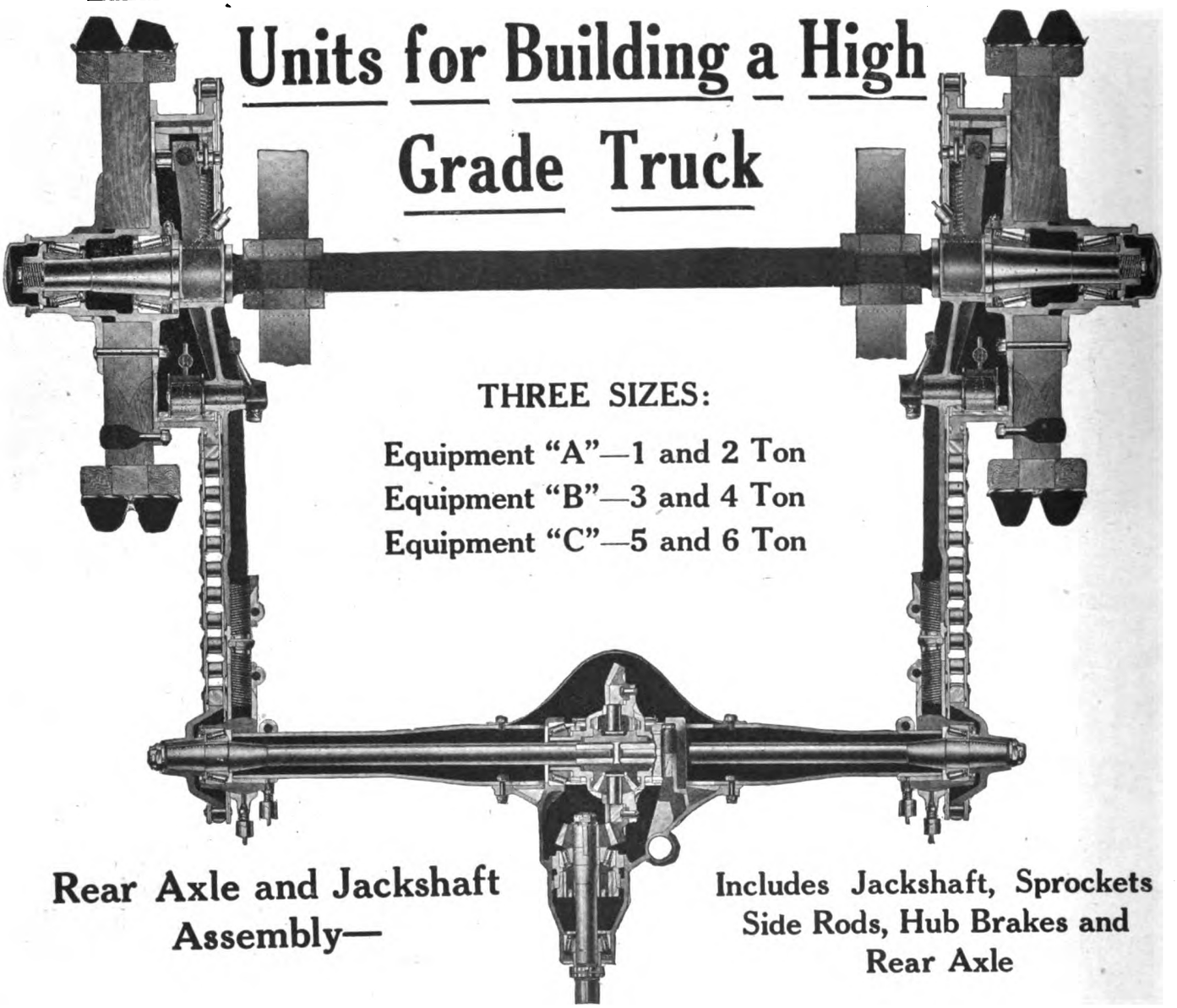
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**MAXWELL FACTORIES**

NEWCASTLE . . . IND.
PROVIDENCE . . . R. I.
TARRYTOWN . . . N. Y.
KINGSLAND POINT, N. Y.

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# What You Expected Tomorrow is Here Today—the Last Link in a Chain of Units for Building a High Grade Truck



THREE SIZES:

Equipment "A"—1 and 2 Ton
Equipment "B"—3 and 4 Ton
Equipment "C"—5 and 6 Ton

**Rear Axle and Jackshaft Assembly—**

**Includes Jackshaft, Sprockets Side Rods, Hub Brakes and Rear Axle**

If the motor car industry needed evidence to show it how deeply we enter into the problems of the industry they need only look at this new Axle.

It lifts a load of worry from the shoulders of every Truck Manufacturer who adopts it. Every Truck Builder will appreciate at once what a vast amount of detail work it sweeps away. The fact that it is built entirely in the Timken-Detroit shops means Timken-Detroit Quality—Reliability, absolute Dependability.

We make nothing but AXLES. We eat, sleep and think AXLES. For more than three years we've had this complete Rear Axle and Jackshaft Assembly in our bonnet—worked steadily at it until now we offer you a thoroughly COMMERCIAL proposition.

Please note that word COMMERCIAL. Absorb its full meaning—"a practical, tried-out article, fit for everyday use." Something for which we've no apologies to offer. You can adopt it at once for your cars without question. It's a COMMERCIAL axle built for COMMERCIAL service.

---

The features of this new Axle and Jackshaft Assembly are, Simplicity, Strength, Completeness, Economy of Power. Study the details; you will see many strikingly up-to-the-minute points of superiority.

The Jackshaft is one of our standard bevel drive rear axles with fittings on ends for adjustment to the Truck frame.

The forward sprockets are dished. This brings the Timken bearings on the ends of the Jackshaft on a direct line with the pull of the chain—reduces the load on the bearings and keeps the chains in alignment.

Side rods are journaled on the rear axle. They carry the brakes and are attached to the ends of the jackshaft by large spherical bearings. This eliminates all twisting strains from the side rods.

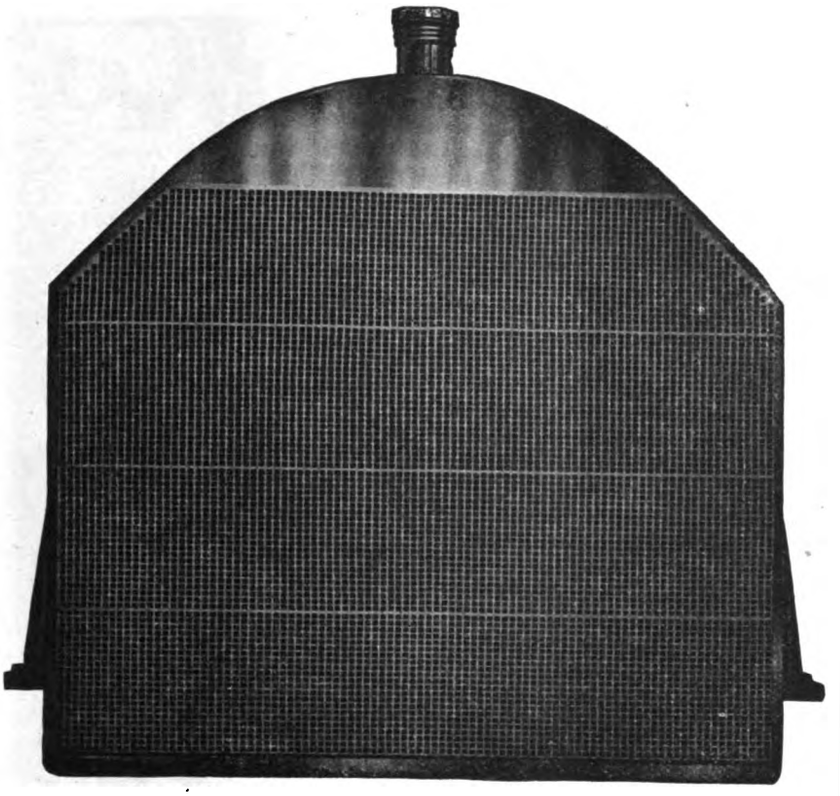
Brake drums and sprockets are in one piece—attached directly to wheel spokes. Brakes are internal, cam-operated type—very large in diameter—extra wide face.

Rear axle inside of side rods is rectangular in section—gives the maximum amount of strength for minimum weight of axle.

Want to know more? Get in direct touch with our engineering department.

## The Timken-Detroit Axle Company, Detroit, Mich.

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¶ Good advice—

# Put Up a Good Front
## —then make good.

¶ That's what MAYO RADIATORS are doing and have been doing for years on America's best known and best liked cars.

¶ The list has increased as fast as we were able to take care of it.

¶ The superiority of MAYO RADIATORS was long since established.

¶ MAYO RADIATORS today are simply living up to their reputation than which nothing better could be said.

**MAYO RADIATOR COMPANY**
New Haven, Conn.

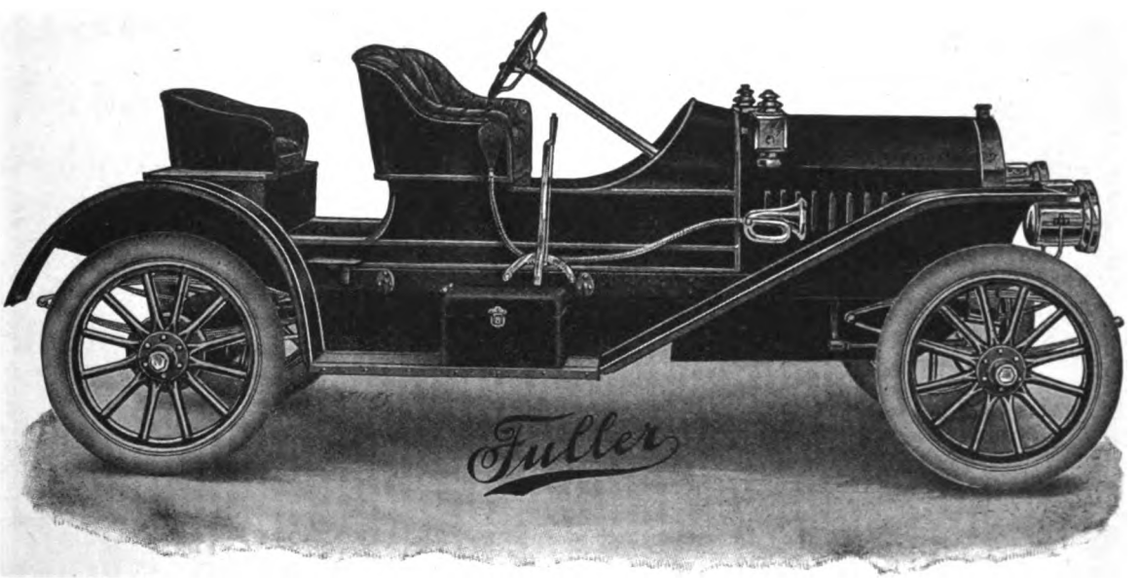
# $1,065 is the Selling Price

of this gentlemen's driving car, the

## Fuller "30" Roadster

with long stroke bloc motor, full elliptic springs and other advanced features.

¶ The FULLER line includes two and four cylinder models, pleasure and commercial, solid and pneumatic, from $825 to $1,165.




**FULLER BUGGY COMPANY, Jackson, Mich.**
Licensed under Selden Patent.


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# The Dayton Motor Car Co.

**Dayton, Ohio**

place the largest individual order ever given for demountable rims. All 1911 Stoddard-Dayton and Courier cars will be equipped with

# THE STANDARD UNIVERSAL RIM

**MANUFACTURED BY**

## The United Rim Company

**Akron, Ohio**

The wholesale adoption of the Standard Universal Rim by representative automobile manufacturers is the best argument in favor of its practical and desirable demountable and quick detachable features.

# FITS ALL TIRES


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RAY F. McNAMARA (PREMIER), WINNER OF GLIDDEN TROPHY

# Premier—Glidden Winner

## Used a Bosch Magneto

Chalmers, winner of second honors in Glidden Tour was also Bosch Equipped, as was the Premier No. 2 car which won fourth place. This hardest of all Gliddens showed up the strength or weakness of every part of each car; and it demonstrated that the high grade car equipped with the Bosch Magneto has ignition efficiency, power and endurance. **Every Glidden Tour has been won by a Bosch-equipped car.**

# Cobe Trophy Won by

## Bosch-Equipped MARMON

This most important race of the Middle West won by Dawson driving Marmon car 31, with Harroun in 30 Marmon third, and Harry Grant in Alco fourth. All Bosch equipped. A strenuous, swift 200-mile speed and endurance test won in 163:20.14.

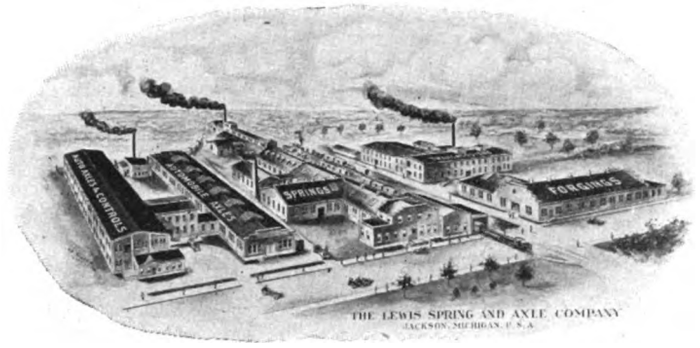


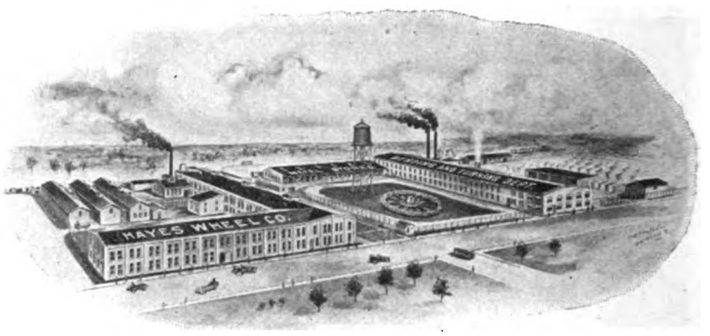
## BOSCH MAGNETO COMPANY

**223-225 West 46th Street, New York**

| Chicago Branch: | San Francisco Branch: | Detroit Branch: |
|---|---|---|
| 1253 Michigan Avenue | 357 Van Ness Avenue | 878 Woodward Avenue |

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# We Specialize in Service to the Car Builder

Ours is the only parts selling organization—pure and simple—in the entire automobile industry.

We do not manufacture.

But we do control the sale of the output of five of the largest parts makers in the business.

We have at our command the matchless facilities of factories which produce $5,000,000 worth of parts every year.

When the car builder comes to us for parts, these unsurpassed facilities are automatically placed at his service.

Thus the automobile manufacturer is given very real advantage in two ways.

One of these is quality. Having no need of sales organizations, the plants we represent turn their undivided energies to manufacturing.

On the other hand, we devote our entire time and attention to sales and deliveries, knowing that the worth of the product is guaranteed by these names:

**Lewis Spring & Axle Company**
**Hayes Wheel Company**
**American Gear & Manufacturing Company**
**Sparks-Withington Company**
**Frost Gear & Machine Company**

The products of these companies are:

**Front and rear axles**
**Wheels**
**Springs**
**Transmission gear sets**
**Side control levers**
**Steering control sets**
**Pressed metal parts—hub caps, radiator fans, etc.**

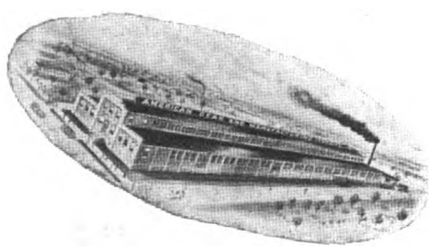
Thus the buyer is afforded a service, in placing parts orders, that is without an equal.

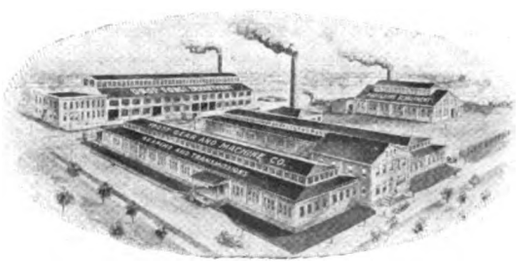
Add to this the service of delivery when specified, and the result is not approached by any other single organization.

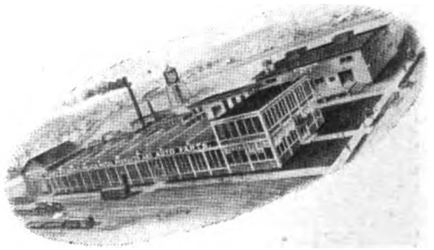
## AMERICAN DISTRIBUTING CO., 1030 S. Park St., Jackson, Michigan

**Sales Agents for**

LEWIS SPRING & AXLE CO. FROST GEAR & MACHINE CO. HAYES WHEEL CO.
SPARKS-WITHINGTON CO. AMERICAN GEAR & MANUFACTURING CO.







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ONLY LONELY TELEGRAPH POLES indicated the famous old "Wire Road" from St. Louis to the southwest traversed by the Flanders "20" "Under Three Flags" car enroute to Mexico City.

YEARS AGO, ABOUT FIFTY YEARS AGO, pioneers in wagons journeyed this historic highway to the golden west. They called it the "Wire Road" because the government had made it the route of the first telegraph line which penetrated the southwest.

TODAY THE ROAD IS A THING OF THE PAST. Where it is not fenced in as part of a farm, it is brushgrown or bedrocked. An automobile had never been seen to pass over this once popular pathway because the cliffs, ruts, stumps, creeks and washouts to be encountered form incessant road perils.

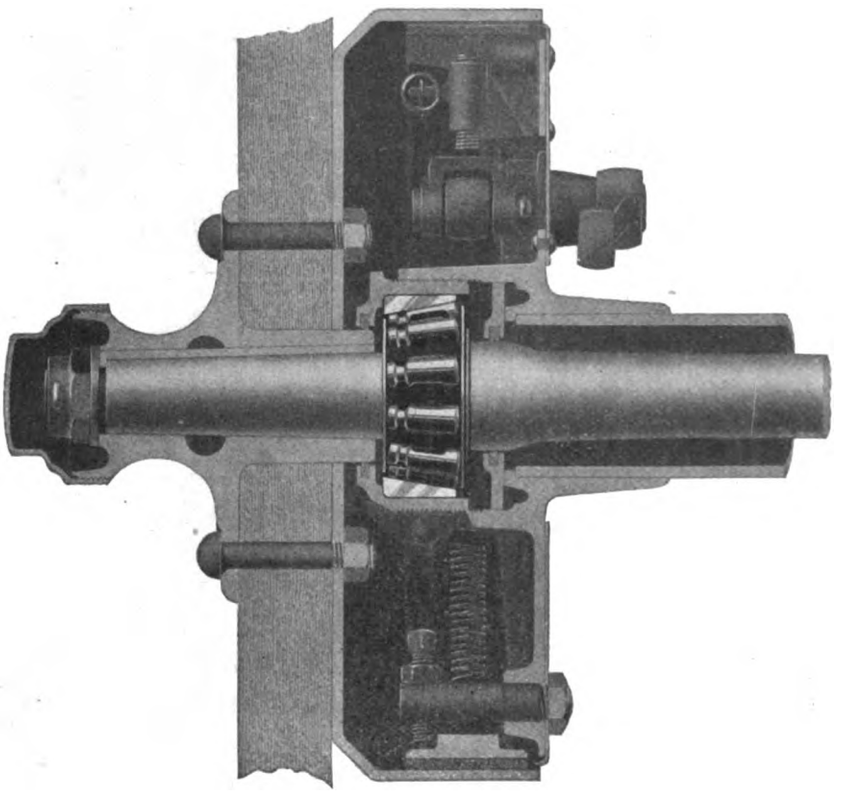
THE FLANDERS DID IT, HOWEVER! This sturdy twenty passed over rocks, ran through underbrush and forded creeks for ten days and when Driver Lane reached Dallas he wired that the motor was humming harmoniously and the car standing up as sound as when it began the trip.

WATCH THE CAR from Dallas to Mexico City do some more "show me" stunts.

**E-M-F COMPANY, Automobile Manufactnrers, Detroit, Mich.**

Licensed under Selden patent.

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# Timken Roller Bearings

¶ The above cut shows the application of TIMKEN ROLLER BEARINGS to the end of the usual form of Fixed Hub Type of Bevel Drive Rear Axle.

¶ In this construction one bearing is used at each end of the axle, the bearing being inserted with the large diameter of the roll facing the center of the axle.

¶ The individual driving shafts should telescope freely through the driving gears in the differential at the center of the axle with their ends butting together. This allows the end thrust strains which are developed when a car turns corners at high speed, being carried directly across the axle and being taken up in the bearing on the other end of the axle, in no wise throwing any strains on the differential.

¶ The take-up features of our tapered bearing make their application in rear hubs especially practical and successful.

THE TIMKEN ROLLER BEARING CO.
CANTON, OHIO

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# Important Notice to The Trade

The 1911 Announcement of the

## PIERCE-RACINE

### The Car with a Famous Engine

will be made in next week's issue. There will be three models—

Five Passenger Touring, with forward door, $1850
Four Passenger Suburban, . . . . 1850
Four Passenger Torpedo, . . . . 1950

All with complete equipment.

Correspondence will be solicited from dealers who want a car of substantial refinement for the better class of trade.

## PIERCE MOTOR COMPANY

Licensed under Selden patent.

111 22d Street RACINE, WIS.

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# THEY ALL USE WEED CHAINS



**As in all previous tours, the Winner, (Premier No. 1) the Pathfinder, (Chalmers "30") and the contestants generally, used Weed Anti-Skid Chains.**

When it comes to a gruelling contest like a Glidden Tour, the pathfinding trip which preceded it, or the New York-Paris Race, the experienced drivers use Weed Chains because—they are the only practical anti-skidding device. These men do not take chances. Weed Chains are especially hardened, made of the best quality of chain, wear longer and give better service than any of the infringing imitations. But—

UNITED STANDARD EQUIPMENT MANUFACTURERS
WE PROTECT THE DEALER, THE OWNER AND THE CAR

*Be sure you get BRASS PLATED Cross Chains when you ask for Weed Chains and see that the name "Weed" is stamped on the hook—your guarantee that you're getting the real Weed Chains.*

**Weed Chain Dept. United Manufacturers**
**250 West 54th Street, New York**

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On the following pages will be found illustrations and information concerning

1911

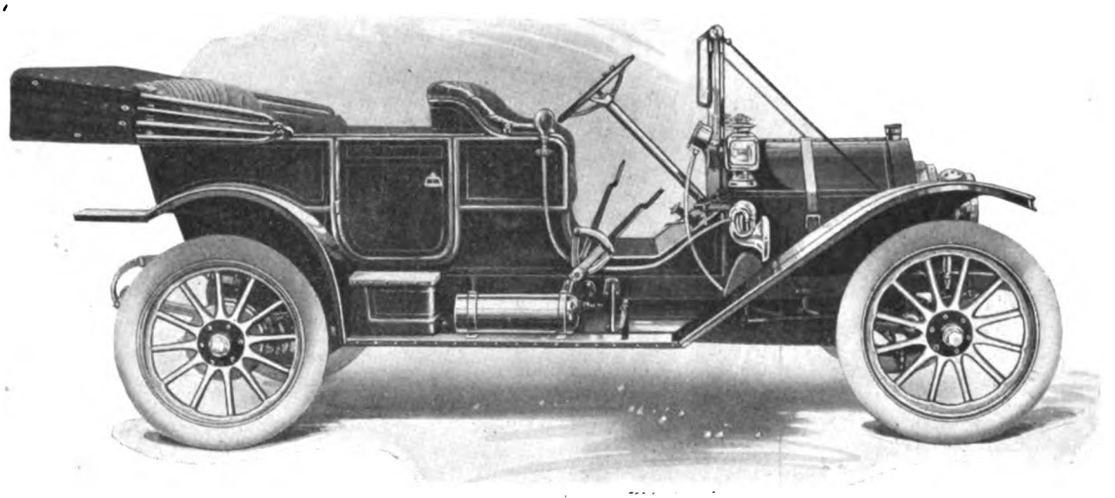
HAYNES

CARS

The only car of established reputation selling at a moderate price.

A Haynes at $2000 has been by odds the "biggest buy" in automobiles during the past year, and our two superb models for 1911 will give the dealer an even better opportunity to cater to those who insist on cars of proven merit.

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## Model "20"—Five Passenger—35-40 Horsepower—$2000

A HANDSOME, ROOMY CAR, WITH SUPERB APPOINTMENTS AND COMPLETE EQUIPMENT

This is the car that marked a new era in the purchase price of high-grade cars.

The placing on the market of a car of established reputation at $2000 was the most unusual thing that had ever been done in the manufacturing and selling of quality cars.

As stated at the time it was announced, it was a distinct innovation.

The effect on both the trade and the public was instantaneous.

Within thirty days from the time our first big "ad" appeared in the national magazines we had definite, advance-payment orders in hand for more cars than we could make.

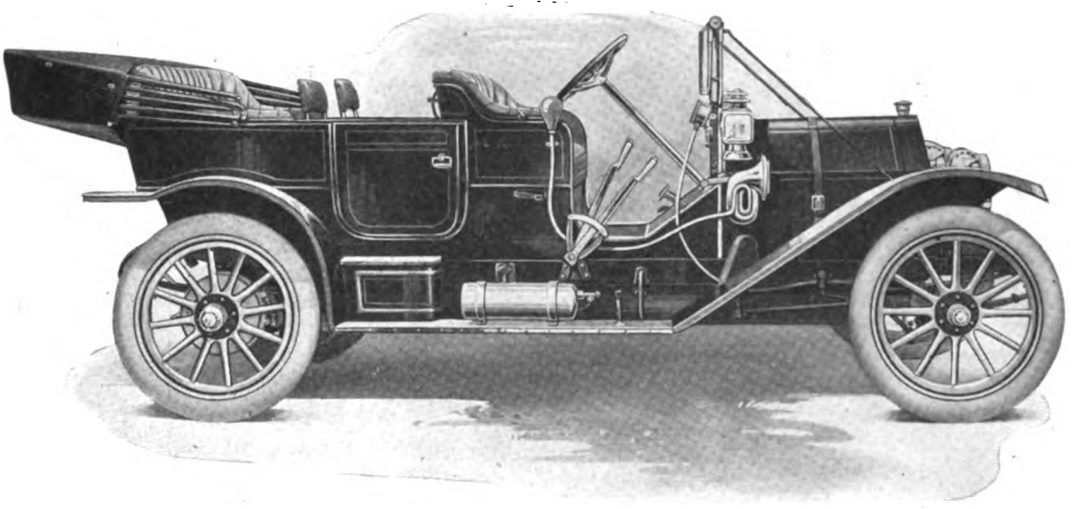
Dealers saw immediately that the demand for a car of established reputation at a price so near the price asked for makeshift cars, would be far greater than the supply.

More than this—

There was no other car to be had that would meet this demand—no other car with a name and a record that offered a positive guarantee of superior merit at anything like a "popular" price. The Haynes 19 found itself literally without competition in its class.

We will practically double our 1910 output of these cars for 1911. No important changes have been made in the specifications, but in several minor details the car has been improved—the tonneau has been lengthened, the rear seat widened, the wheel base has been extended to 114 inches, and even better equipment has been provided.

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## Model "Y" — Seven Passenger—50 Horsepower—$3000

There has been an insistent demand throughout this past year for a big Haynes car—a car to correspond with the big $5000 cars in size, but with the design, workmanship and general appointments of the "19."

The success of the "19" has made it impossible to meet this demand, but our increased facilities will enable us to build a limited number of these big cars for 1911.

The new Model "Y" offers to this class of buyers a car that combines tone, name, reputation and style — essential requisites in cars to be sold to those who care less for cost than for the right car.

The price — $3000 — represents a value, in comparison with the price asked for similar cars, that is no less remarkable than is the case with our five-passenger model.

Only a limited number of these cars will be built — just enough to supply the natural demand that is created by the putting out of a strictly high-grade smaller car.

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# AGENTS WANTED FOR 1000 CARS

We will manufacture approximately 1000 more cars for 1911 than were made for 1910.

It is for these cars that we want additional agents.

It is not the policy of the Haynes Company, as it is of some others, either to greatly over-sell their product or to concentrate any large number of cars with any one agent.

We prefer to distribute our product in reasonable quantities to the best agents to be had.

Practically the same apportionment will be allowed the present agents as was allowed for 1910, but we desire to get in touch with first-class agents for the additional cars we will make this year.

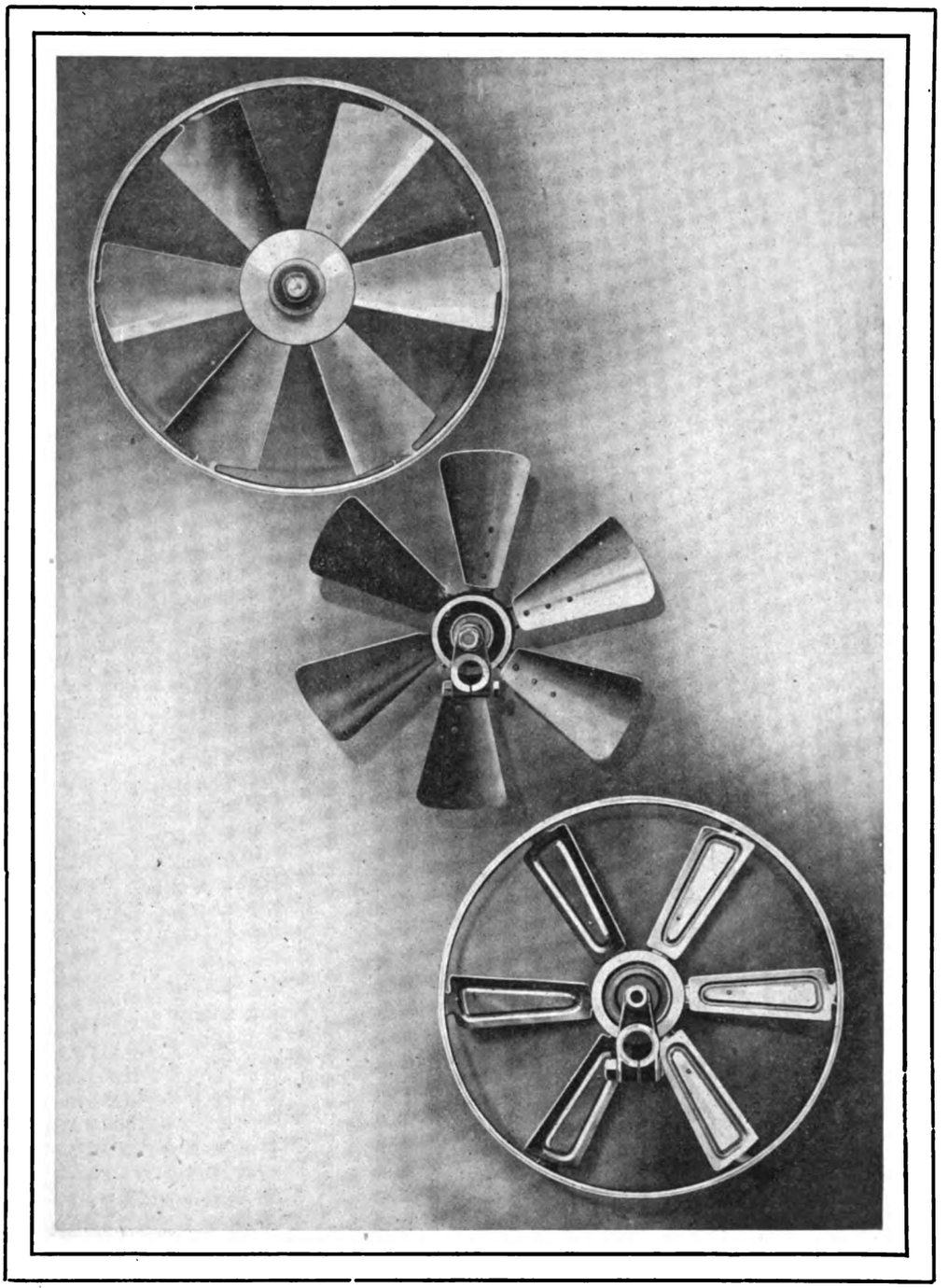
These contracts will be closed as quickly as possible in order to enable dealers to make early fall deliveries, and we strongly advise dealers who are interested to get into communication with us immediately.

## HAYNES AUTOMOBILE COMPANY

Station C Licensed under Selden patent. KOKOMO, IND.


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# McCORD AUTOMOBILE FANS



**Neatly Designed—Highly Efficient—Great Strength—Ball Bearings Throughout. In Quantities—and When You Want Them.**

## McCORD MANUFACTURING COMPANY

CHICAGO DETROIT NEW YORK


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# The Overland See What $1,000 Buys in an Overland The Overland

**Note what can be done by using automatic machinery—by enormous production—by devoting one factory to a single model—by saving the profits paid to makers of parts. See what a car you can now get for a little.**

The Overland has won the leading place in motordom by the use of modern methods. Over $3,000,000 has been invested to make Overland cars economically.

Each Overland factory is a model plant. There is not a lost motion—not a waste or repetition—from the raw materials to the finished car.

Each piece of machinery is adapted to making some part in the most exact, most rapid, most economical way.

That is how Overlands give so much for the money, and why they command such enormous sale. There is no skimping of materials, no slighting of workmanship. There are only up-to-date methods which have been perfected by the army of Overland experts.

## Automatic Machinery

Even the best engineers are amazed when they go through an Overland factory. Here are myriads of machines—some of them costing into the thousands of dollars—each designed for the purpose of saving a trifle on some particular part.

Here is a machine which enables one man to do the work of sixty men. Here is a machine which performs thirty operations in the time which another machine took for one.

Here are welding machines—electrical welders—which bring steel to white heat while one takes a breath.

Here are rows upon rows of automatic machines, doing the work of an army of experts, and giving such exactness as human hands never gave.

Many of these machines were designed in our own factory—invented by our own engineers. Some save but a little—some save a great deal. The sum of their savings—on the thousands of parts which enter into a car—has cut the cost of Overlands 20 per cent within the past year alone.

Some high-priced makers say their cars are handmade. Overlands are made—as watches are made—by exact automatic machinery.

## Other Economies

We devote one factory to one model alone. Every machine is adapted to some particular part. Every man is trained in one operation.

There is a separate factory for mud guards, a factory for radiators, an engine factory, a factory which makes nothing but screws. There is a crank-shaft factory—an enormous plant—built to save you $15 per car.

Then there is overhead expense which, in many a factory, amounts to 25 per cent of the cost of a car. In the Overland factory that expense is spread over an annual output of $24,000,000.

Those are the reasons why Overlands give so much more than the rest for the money.

## 25 h. p.—$1,000

This year we are selling a 25-horsepower car, with a 102-inch wheel base—for $1,000. Its possible speed is 50 miles an hour. It will carry four people up a 50 per cent grade, starting from standstill.

It is not under-sized, not under-powered, like the usual low-priced car. It is a car to be proud of—a car that meets any requirement.

It is a car of matchless simplicity. The operation is by pedal control. One goes forward or backward, fast or slow, by simply pushing pedals. A child can master the car in ten minutes. A young woman is now driving one of these cars from the Atlantic to the Pacific.

The car is almost trouble-proof. Many an owner has run it thousands of miles without even cleaning a spark plug. These cars have been used in the U. S. Mail service for over a year and a half. During all of that time they have made their daily trips, in all sorts of weather, without a moment's delay. Hundreds of men who could afford any car have chosen for their own use this $1,000 Overland.

## 40 h. p.—$1,250

The 40-horsepower Overlands—with 112-inch wheel base—sell for $1,250 to $1,500, according to style of body, etc. The Marion-Overland—the marvel of motordom—sells for $1,850.

All of these prices include gas lamps and magneto, and the Marion-Overland includes a Prest-O-Lite tank.

Please send us this coupon for full information. Then measure the Overlands by any competitor. You will see why the Overlands have so quickly become the most popular cars in existence.

We have dealers in 800 towns.

(M-64)

**The Willys-Overland Company**
**Toledo, Ohio**

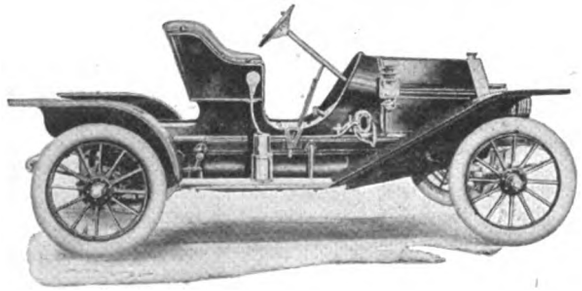
*Please send me information about*

*Passenger Cars* ☐ *Delivery Cars* ☐

*The Marion-Overlands* ☐

_____

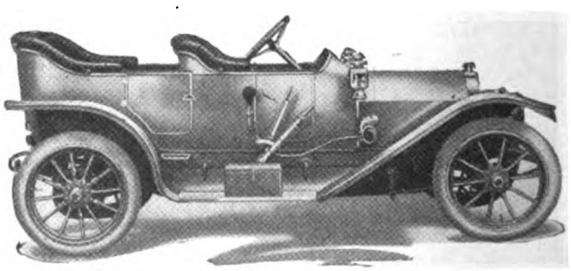
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The $1,000 Overland—25 horsepower—102-inch wheel base. Same car with single rumble seat, $1,050; with double rumble seat, $1,075; with complete toy tonneau, $1,100.

The Overland

Licensed Under Selden Patent



40-horsepower Overlands, with 112-inch wheel base, cost from $1,250 to $1,500. Marion-Overlands, $1,850. We fit these cars with all the latest styles of body, open or enclosed.



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THE MOTOR WORLD

Volume XXIV. New York, U. S. A., Thursday, July 21, 1910. No. 3

## PETITION MORA INTO BANKRUPTCY

### Creditors Refuse to Hold Longer to a Policy of Inaction—Liabilities Reach Almost a Half Million.

After months of difficulties with its creditors, the Mora Company, of Newark, N. Y., making the Mora car, has been petitioned into involuntary bankruptcy, with total liabilities reliably estimated at $476,000.

The creditors of the company have been restive for many weeks, and the company frankly has told them that it could not pay at present and that if matters were pressed the creditors would have to take their chances in whatever a bankruptcy action might yield. On this ground it urged that it be permitted to continue as a going concern. At a meeting of the creditors about three weeks ago, however, the company was asked for a complete statement of its financial condition, which was refused, the refusal to some extent being responsible for the present action.

Judge John R. Hazel, of the United States District Court for the Western District of New York, at Buffalo on the 16th inst., adjudged the company bankrupt, and appointed George W. Todd and Horace McGuire as temporary receivers. Three Rochester firms appear among the petitioning creditors, including the W. P. Davis Machine Co., $8,116.14; Myers Advertising Agency, $17,081.74, and Clum & Atkinson, $25,000, while the New Process Rawhide Co., of Syracuse, N. Y., also appears on the petition, with a claim for $16,064.98. Plumb & Plumb, attorneys of Buffalo, appeared for the creditors, while Hon. William W. Armstrong is attorney for the bankrupt.

### Big Buggy Makers in Automobile Project.

The Banner Buggy Co., of St. Louis, Mo., one of the largest producers of buggies, is making ready to engage in automobile manufacture. Russell E. Gardner, the president of the company, has organized the Banner Automobile Co., incorporated under Missouri laws. Hugh Cartwright, vice-president of the Banner Buggy Co., and Elmer L. Roninger, a department manager, are associated with Gardner in the enterprise. Gardner states that the company will not commence active manufacturing for some time, but that it intends ultimately to build a plant with a capacity of 20,000 machines a year.

### Willys-Overland Increases to $6,000,000.

Carrying out the program announced some time ago, the Willys-Overland Co., of Toledo, O., has increased its capitalization from $2,000,000 to $6,000,000, for the purpose of merging the Overland Automobile Co., of Indianapolis, Ind. The increase provides for a total capitalization of $2,000,000 in 6 per cent. cumulative preferred stock and $4,000,000 in common.

### Accessories Destroyed in Hartford Fire.

Fire of unaccounted for origin destroyed automobile goods and supplies to the value of $15,000 belonging to the Post & Lester Co., of Hartford, Conn., in Hoadley's warehouse on the 15th inst. The building itself was damaged to the extent of about $10,000. A similar fire occurred last September, when the Post & Lester Co.'s goods in the building were damaged. The losses are covered by insurance.

### Embree Makers in Difficulties.

Involuntary bankruptcy proceedings have been brought against the Embree-McLean Carriage Co., of St. Louis, Mo., makers of the Embree car. The largest claim of the petitioning creditors is a note for $2.500, held by Herman Naue.

### Glass Becomes Michelin Treasurer.

R. E. Glass, who early this year was made a director of the Michelin Tire Co., of Milltown, N. J., has been elected treasurer of the company. He succeeds E. Fontaine, who recently resigned.

## URGE INJUNCTION AGAINST FORD

### Selden Attorneys Want it in Judge Hough's Forthcoming Decree—Significant Comments by the Court.

In a final attempt to have the Ford Motor Co., of Detroit, Mich., legally enjoined by the United States Circuit Court from so much as turning a wheel in its big factory, for the manufacture of automobiles, the attorneys for the Association of Licensed Automobile Manufacturers on the 19th inst. presented their arguments in the concluding hearing relative to the decree in the famous Selden patent case which was decided last September. Opposing arguments by the Ford attorneys likewise were presented.

Judge Hough's decision in September, in the United States Circuit Court for the Southern District of New York, sitting in New York City, was in favor of George B. Selden and the Electric Vehicle Co. as against the Ford Motor Co. and Panhard & Levassor, the latter companies being found to infringe the Selden patent, No. 549,160, which is claimed to cover all forms of the modern gasolene automobile. But the filing of the decree, following the decision, has been delayed until Judge Hough could hear the arguments as to whether the name of the Columbia Motor Car Co. properly could be substituted for that of the Electric Vehicle Co., which it succeeded, and as to the propriety or wisdom of issuing an injunction against the defendant companies, from manufacturing or selling their automobiles in the United States. This hearing took place on Tuesday of this week at Narragansett Pier, R. I., where Judge Hough was keeping an engagement to speak before the Commercial Law League of America.

In asking that Judge Hough issue an injunction against the Ford company, Attorney Samuel R. Betts, who with Frederic P. Fish represented the Selden forces, de-

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clared that the Ford company should not be permitted to get off with the mere filing of a bond, no matter how adequate the bond might be. He maintained that nothing short of an injunction would be entirely satisfactory to the complainants.

"When the Ford company started," said Betts, "it was a small concern. It has advertised this suit and has held itself up as an opponent to a monopoly, thereby extending the business enormously. Its business has been built up in defiance of the patent rights, and the company should have been enjoined at the outset. The company has never had the right to build a single car.

"All this has been done in the face of warning that it was infringing upon the patent rights. Now they say that they should not be enjoined because they are such a large concern, with $8,000,000 in assets, and able to pay any amount of damages to the complainant that may be set in the final settlement of the suit."

The Ford attorneys, W. Benton Crisp and Edmund Wetmore, in asking that the decree omit the injunction feature and that the court be satisfied with the exaction of a bond, showed that not only is the Ford company, with its $8,000,000 in assets, sufficiently responsible financially to answer all demands, but that it employs some 4,000 men at its factory and has branches in seventeen cities, all of whom would be more or less hard hit in case the company were enjoined from manufacturing or selling.

In the course of the hearing Judge Hough indicated that he himself inclines toward injunctions, where defendants have been found by the court to be infringing. Some of his confreres on the bench, however, do not share his inclination very strongly. Furthermore, the case is to be carried to the United States Circuit Court of Appeals immediately the decree is entered, and the latter court might cancel or annul an injunction against the Ford company if he were to issue it, so that it would be of only brief duration and would impose more hardship and inconvenience than would be proportionate to its practical effect in the patent litigation.

Having thus made it appear that an injunction is not likely to be a feature of his forthcoming decree, Judge Hough listened to the Licensed attorneys' views as to what the bond requirements should be. Attorney Fish asked that the court fix $500,000 as the amount of the Ford bond and $50,000 for Panhard, and that the defendants, after filing these bonds, respectively, should be required to pay into court amounts equal to royalties on their cars as they sell them in the future.

Judge Hough arranged for the hearing this month, during his vacation, in order that the matter might be expedited and carried before the Court of Appeals next October, the decree itself is expected during the coming month. Upon entering the decree, the defendants will at once file their appeal. A special, preferential position on the calendar has been reserved for the case by the Court of Appeals, so that it may have an early hearing, as the Selden patent expires in 1912. All the evidence and testimony of the case, as tried before Judge Hough, being available for the higher court, it is probable that the trial will be quite brief, being largely argumentative on the purely legal phases. The case cannot be carried higher than the Circuit Court of Appeals, unless the United States Supreme Court should choose to review it because of some doubt as to the appellate court's findings.

### General Motors to Issue More Paper.

Not content with a raise of capitalization from $12,000,000 to $60,000,000, the "genius" of the General Motors Co. is contemplating giving the lithographers and paper makers another big job, by still further increasing the capitalization of the merger corporations. Holders of the common stock also are afforded the prospect of another dividend—again in stock, however, and not in money. From the New York offices of the company, W. C. Durant has issued a letter to the stockholders, as follows:

"I am pleased to tell you that a deal is pending, which, if consummated, will very materially enhance the value of the common shares of this company. In order that there may be no misunderstanding, I will say that no merger is contemplated. Briefly stated, we have in view the increased capitalization of the General Motors Company, based somewhat on the earning capacity of the constituent companies, which will approximate $12,000,000 net for the year 1910, giving to our common stockholders not less than five for one in the new securities in exchange for the present holdings."

### Shaler Lets Contract for New Factory.

The C. A. Shaler Co., of Waupan, Wis., making Shaler electric vulcanizers, has awarded contracts for the construction of a new factory. The main building is to be of concrete, and electric power transmission is to be used exclusively. When the new building is completed, the company will have, with its original factory and two recent extensive additions, the largest plant in the United States devoted to the manufacture of rubber tire vulcanizers.

### Says Morgan Made Pelletier Resign.

In discovering what has been known to not a few people in the trade for some time, that E. LeRoy Pelletier resigned as advertising manager of the E-M-F Co., of Detroit, Mich., before sailing for his present European sojourn, the New York World also has discovered what it believes to be the reason. In a sensational account, the World explains that it is all because J. Pierpont Morgan "has a mad on" Pelletier for mentioning the money king's name too freely in connection with E-M-F and Studebaker affairs. Morgan's displeasure, it is indicated, resulted in the severance of Pelletier's connection with the company, as it was Morgan who financed the purchase of E-M-F for the Studebakers.

### Will Make Yale Professor's Engine.

With an engine invented by a Yale college professor as the basis for the project, ex-Senator John M. Brady, of Hartford, Conn., is organizing a $200,000 concern to be known as the Rex Motor Company of America, and which is to manufacture automobile motors in Hartford. The motor is of a somewhat radical type developed by Professor J. J. Hogan, of Yale University.

### Jackson Carriage to Make Cars.

The Jackson Carriage Co., of Jackson, Tenn., is embarking in the manufacture of automobiles, and thereby will perpetuate one of the town's "infant industries." For this purpose it has taken the plant formerly occupied by the Southern Motor Works, which latter recently moved to Nashville, Tenn.

### Why Two Factories Won't be Built.

Caution against undue or untimely expansion is assigned as the reason why Toledo, O., is to be disappointed as to the building of factories in that city this year for the Castle Lamp Co. and the Warner Mfg. Co., respectively. Both concerns are described as "waiting to see what happens in 1911."

### Champion Spark Plug Moves to Toledo.

The Champion Co., of Boston, Mass., making Champion spark plugs, has moved its factory to Toledo, O., with headquarters at 609 Jefferson avenue, and in the future will be known as the Champion Spark Plug Co. For the eastern trade an office with full stock will be maintained at 394 Atlantic avenue, Boston, Mass.

### Straub Again Sails to Europe.

Jack L. Straub, secretary and treasurer of the J. S. Bretz Co., of New York, has sailed for a five weeks' business trip in Europe. He will visit the plants that make F. & S. bearings, U. & H. magnetos, Bowden wire mechanism and other motor car equipment devices imported by the Bretz company.

### Carburetter Concern in Stratford.

The Bridgeport Carburetor Co. is a new industry in Stratford, Conn., having taken a factory on Johnson avenue for the manufacture of carburetters. John Miller is president, with George Youngs as secretary and treasurer, and Adam Blackert as general manager.

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## ASKS HELP IN PAYING THE PIPER

**Mysterious Association Attempts to "Assess" Unlicensed Makers—Seeks to Collect for Unauthorized Publicity.**

An aftermath has developed to the brief advertising spasm of the mysterious Association of Motor Car Manufacturers, of Detroit, Mich., and those of the unlicensed makers of motor cars who last May were surprised to find their names at the bottom of a flaring newspaper advertisement attacking the Association of Licensed Automobile Manufacturers are being invited to pay cash for the sensation. The advertisement occupied a large space in daily papers in almost all the leading cities, and was in the form of a denunciation of "an attempt by the automobile combination to destroy the independent automobile manufacturers of America."

Making its appearance shortly after the formation of the Association of Motor Car Manufacturers in the office of a Detroit lawyer, it readily was "spotted" as an association manifestation, but instead of being signed by the association it concluded wth a list of almost 100 unlicensed makers, giving the impression that they all were banded together as subscribing to the campaign. Such concerns as Ford and Jeffery were prompt in disclaiming any connection with the alleged association and in indicating that the use of their names was entirely unauthorized, and only a short time elapsed before several concerns whose names appeared in the list became licensees under the Selden patent.

Nevertheless, the secretary of the Association of Motor Car Manufacturers now is writing to the companies whose names appeared, asking them to "cough up" for the publicity they received. It would seem that the bill for the advertising is not yet fully paid, and the association is casting about for means to raise the necessary money. If the association be worried over the matter, its anxiety is nothing compared with that of the advertising agents who ordered the newspaper space and who are being held responsible by the publishers.

Instead of being quickened into joining the association in consequence of the advertisement and the activity which it indicated, many of the unlicensed makers resented the unauthorized use of their names. For this reason, if for nothing more, they are wroth indeed at being asked to pay for the ad. Others frankly comment on the peculiar business conception that would lead an association to incur debt in such a way and then ask non-members to meet the obligation. The bill for the newspaper space, being an aggregate from a big list of papers, is of formidable size, but despite the proportional division of the assessment, as explained in the secretary's letter to each company, the unlicensed makers give no evidence of undue haste in forwarding their checks to help the association "make good" to the advertising agents.

### Wood to Reproduce British Truck.

Since its recent incorporation with $3,000,000 capital, the Wood Automobile Mfg. Co., of Kingston, N. Y., which enjoys close relations with Wyckoff, Church & Partridge, of New York City, has been quietly advancing its manufacturing plans, and it transpires that the company is to engage in commercial vehicle manufacture on a large scale, making an American reproduction of a British truck. The concern has effected an agreement involving something over $100,000 for the American rights for the Commer-Car, made by the Commercial Cars, Ltd., of Luton, England, and it has engaged Julian A. Halford, of the latter company, for the production end of its business. It is planned to make about 1,000 three-ton trucks per annum at the Kingston factory, using Polack tires, of British manufacture. The Commer-Car, which, while it may be a "comer" in the vernacular sense, gets its name from a shortening of the word "commercial;" it is made in a large number of models. To supplement its own offerings of the three-ton size, the Wood company will import other models from Great Britain.

### To Assemble Electrics in Rochester.

The Empire State General Vehicle Co. has been formed in Rochester, N. Y., for the purpose of taking over the electric automobile truck business of the Rochester Railway & Light Co. An assembling plant for electric vehicles is to be built on North Goodman street at the Circle, the parts and equipment being obtained from the General Vehicle Co., of Long Island City. The company, which has been incorporated with $100,000 capital, has the following officers: Robert M. Searle, president; Granger A. Hollister, vice-president; James T. Hutchings, secretary and treasurer.

### Sweet to Act for Matheson Creditors.

Creditors of the Matheson Motor Car Co., of Wilkes-Barre, Pa., which is temporarily in the hands of receivers, have chosen William M. Sweet, manager of the Motor and Accessory Manufacturers, as secretary of the creditor's committee which has been formed. The arrangement does not officially involve the Accessory association in the receivership proceedings in any way.

### Trucks to be Made in Louisville.

Frank Weber & Sons, of Louisville, Ky., makers of carts and coal wagons, have developed a motor truck and will establish a factory for its manufacture. Ground has been purchased at Jackson and Lampton streets as a site for the new structure.

## DOES NOT GET HIS $7,500 BACK

**Complainant Against Hol-Tan Finds Apparent Victory Turned to Defeat—Involves Dying Man's Signature.**

It will be still quite a little while before Edward T. Bedford, a millionaire automobile enthusiast, recovers $7,500 from the Hol-Tan Co., of New York City, for alleged breach of warranty on a Fiat car which was sold to him when the Hol-Tan company had the Fiat agency, and there is no impossibility about his never getting it all, despite the fact that he seemed to have received a favorable decision from a referee in the case. The reason why he does not get the money is that the Hol-Tan company has brought evidence to show that the referee's signature is not genuine, and Supreme Court Justice Ford has refused to approve the reference.

The decision of the referee, Frederic S. Wait, who died on June 30, was given ten days before his death. He was very ill at the time, but was propped up in bed and held by a nurse while he tried to sign his name at the end of the report with a lead pencil. His hand shook so that an assistant in his office guided his hand as the name was written. Later the pencil lines were traced in ink. After the report had been filed, the Hol-Tan attorney said that the signature and certain "alterations in the findings" were not in the referee's handwriting. Bedford's lawyer declared that the changes were made with referee's consent. Justice Ford did not discuss the regularity of the papers. He dismissed the reference, he said, because "owing to serious illness the referee was unable to give the case such attention as a litigant has a right to expect." If the complainant still desires to recover from the automobile company, he will be compelled to have the case tried over again.

### Pioneer Begins Building its Factory.

The Pioneer Car Mfg. Co., of Oklahoma City, Okla., has progressed in organization to the extent of electing its officers and starting the construction of its factory buildings. The officers are Sidney L. Brock, president; W. R. Roberts, former owner of the Pioneer Automobile Co., at El Reno, vice-president and general manager; W. R. Davis, secretary and treasurer.

### Wright Enlarges Name and Scope.

The Wright Wrench Mfg. Co., of Canton, Ohio, has changed its name to the Wright Wrench & Forging Co., as a forging department is included in the new factory into which the company just has moved. In the future the company will do a general forging business in addition to manufacturing Wright wrenches.

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## THE WEEK'S INCORPORATIONS.

Detroit, Mich.—Boulevard Auto Repair Co., under Michigan laws, with $15,000 capital.

Cleveland, O.—M. and M. Co., under Ohio laws, with $15,000 capital; automobile accessories. Corporators—G. C. McLain and others.

Houston, Tex.—Houston Motor Club, no capital. Corporators—G. J. Palmer, David F. Burks, Harvey T. Wilson and H. C. Mosehart.

Dallas, Tex.—Dallas Motor Car Co., under Texas laws, with $20,000 capital. Corporators—Frank Leahy, W. H. Burt and D. G. Cage.

Indianapolis, Ind.—Auto Sales Co., under Indiana laws, with $25,000 capital. Corporators—W. D. Case, M. G. Beckner and Cass Connaway.

St. Louis, Mo.—American Welding and Automobile Repair Co., under Missouri laws with $5,000 capital. Corporators—August W. Mewes, H. G. Donigan and Fred Essen.

Omaha, Neb.—Omaha Motor Club, under Nebraska laws, with $10,000 capital. Corporators—W. D. Hosford, W. L. Huffman, George F. Reim, L. E. Doty and Otto P. Nestman.

Chicago, Ill.—Benz Motor Co., under Illinois laws, with $2,500 capital; to deal in automobiles and accessories. Corporators—Emil C. Wetten, Charles H. Pegler and Charles V. Clark.

Greenfield, Ind.—Greenfield Auto-Traction Co., under Indiana laws with $10,000 capital; to operate a motor transportation line. Directors—G. A. Carr, J. F. Webb and W. C. Welborn.

Chicago, Ill.—Newbury Auto Livery Co., under Illinois laws, with $5,000 capital; automobile livery and garage. Corporators—Joseph A. McInerny, John F. Clare and Edward V. Peterson.

New York City—W. M. P. Motor Co., under New York laws, with $25,000 capital; to manufacture motors. Corporators—L. R. Walton, F. D. Preston, New York City; L. R. Moody, Bayside, L. I.

Camden, N. J.—Victor Motor Car Co., under New Jersey laws, with $150,000 capital; to manufacture and deal in automobiles. Corporators—Julia H. and J. F. Harrington, H. C. Ochterbeck.

Chicago, Ill.—Farrington-White Co., under Illinois laws, with $10,000 capital; to manufacture automobiles and supplies. Corporators—William H. Farrington, Frank B. and William B. White.

Boston, Mass.—American Rapid Transit Co., under Massachusetts laws, with $200,000 capital; general automobile business. Corporators—George A. Smith, George A. Sweetser and Fred L. Townsend.

Jersey City, N. J.—Independent Owners' Garage Co., under New Jersey laws, with $300,000 capital; to deal in automobiles and operate garages. Corporators—Edward L. Young, Edward I. Edwards and Edwin F. Smith.

Hyde Park, Mass.—New England Motor Truck Co., under Massachusetts laws, with $50,000 capital; automobiles. Corporators Boynton W. Piper, Hyde Park; Harry A. Henderson, Mattapan; Paul F. Spain, Cambridge.

Providence, R. I.—Taxi-Service Co., under Rhode Island laws with $110,000 capital; to deal in motor cars and inventions and patents relating thereto. Corporators—Michael W. Morton, William H. Draper and Edward C. Sweet.

Oklahoma City, Okla.—Regal Motor Sales Co., under Oklahoma laws with $10,000 capital. Corporators—O. H. and Q. V. Lee, Charles E. Kimbrough, Oklahoma City; F. W. Haines, Bert and C. L. Lambert, Detroit, Mich.

Patchogue, N. Y.—Interstate Auto Trolley Co., under New York laws, with $50,000 capital; to operate self-propelling stages in Nassau county. Corporators—James, May and Mollie Thom, Hopewell and William Vix, all of New York City.

Indianapolis, Ind.—Great American Automobile, Auto Truck & Aeroplane Co., under Indiana laws, with $1,000,000 capital, two-thirds preferred, one-third common stock; to manufacture automobiles, trucks and aeroplanes. Corporators—Samuel Quinn, Jr., A. J. Bigley and others.

St. Louis, Mo.—Universal Storage Battery & Supply Co., under Missouri laws, with $100,000 capital, fully paid; to manufacture and deal in storage batteries. Corporators—Paul L. Goodale, H. F. A. Spiegelberg, R. H. Murphy, Roxe Goodale, Max F. Ruler, A. A. Poland, T. A. Ruler.

### Increases and Decreases of Capital.

Beatrice, Neb.—Jonz Auto Co. increases capital from $25,000 to $1,000,000.

Flint, Mich.—Champion Ignition Co. increases capital from $60,000 to $100,000.

Detroit, Mich.—Brush-Chicago Motor Co. increases capital from $11,000 to $12,000.

El Reno, Okla.—Pioneer Automobile Co. increases capital from $20,000 to $50,000.

Detroit, Mich.—Michigan Auto Parts Co. increases capital from $50,000 to $100,000.

Moline, Ill.—Velie Motor Vehicle Co. increases capital from $300,000 to $500,000.

Detroit, Mich.—Grabowsky Power Wagon Co. increases capital from $300,000 to $500,000.

Indianapolis, Ind.—The Commercial Car Co. increases capital from $100,000 to $500,000.

Detroit, Mich.—American Motor Castings Co., increases capital from $125,000 to $200,000.

Louisville, Ky.—Reimers Motor Car Co. increases capital from $10,000 to $50,000, to be divided into $30,000 common and $20,000 preferred stock.

Clintonville, Wis.—Badger Four Wheel Drive Auto Co. increases capital from $45,000 to $110,000.

### New Belle Isle Disclaims Ryno.

The New Belle Isle Motor Co., of Detroit, Mich., making gasolene engines, is concerned lest it be mistakenly identified with the case of E. R. Ryno, who recently was tried in the Federal court in Detroit on the charge of fraud, by reason of his having failed to send automobiles to customers who forwarded money for the machines. Ryno was president of the Belle Isle Motor Co. at the time of his difficulties with his customers, but sold the business in March, 1909, to the new owners, who added the word "New" to the title to mark the complete change in ownership. The Federal jury has disagreed on Ryno's first trial, there being grounds for belief that negligence rather than fraudulent intent accounted for his failure to "deliver the goods" after receiving the various remittances.

### Wants a Million to Build Electrics.

With the distinction that it purposes to make electric instead of gasolene machines, another new automobile company is being promoted in Detroit, Mich. A shaft driven machine, designated as the H. & F. electric, is being exhibited in connection with the project, which has as its backers Frank L. Hovey, proprietor of the Eldorado apartments, and F. E. Foulke, of Kansas City, Mo. It is announced that a million dollar company is being organized for producing the cars on a large scale.

### Small Company with Large Plans.

The Small Motor Car Co. is another of embryonic automobile building projects in Detroit, Mich., and its organizer, John S. Small, indicates that the concern is to be incorporated with a capital of $200,000, for the purpose of operating factories in Detroit and Winnipeg, Can. The intended product is a 25 horsepower, underslung runabout.

### Herkimer Hopes to Produce Cars, Too.

Herkimer, N. Y., has promise of an automobile factory, in the launching of a motor car manufacturing project by Glen Clark, who will be associated with his father in the enterprise. The Clarks recently purchased the building belonging to the old Herkimer Mfg. Co., and it is being altered and equipped for automobile construction.

### Adams Succeeds Fosdick with Hol-Tan.

T. E. Adams has been elected vice-president and treasurer of the Hol-Tan Co., of New York City, which imports the Lancia car. He succeeds Harry N. Fosdick, who resigned last week.

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## IN THE RETAIL WORLD.

Guy L. Watkins is erecting a garage on Maple avenue, Birmingham, Mich.

The Glenn County Garage Co. is erecting a new garage building in Willows, Cal.

Blethen Bros., Dover, Me., have commenced the erection of a concrete garage.

Frank H. Duffee has opened a garage on Main street near Centre street, Malden, Mass.

A. L. Googins has completed a new garage at Prouts Neck, Me., and is ready for business.

Newport, R. I., has another garage. Wm. Quigley & Son are its owners. It is located on Market square.

Henry Christy has embarked in the automobile business in Madison, Ohio. He has taken the agency for the Hupmobile.

Soest Bros. have leased the premises 207 East Main street, Fort Wayne, Ind., which they will convert into an electric garage.

Patrick D. Skahen has been granted a permit to erect a garage at 422 South West street, Syracuse, N. Y. It will cost $2,500.

The White Co., of Baltimore, Md., has completed the erection of a new garage at Mount Royal and Guilford avenues in that city.

Mayer Bros. are building a garage on Main street in Delta, Col. It will be the fourth structure of the sort in that little place.

The Schenk Co., Fulton, W. Va., have abandoned horses for automobiles. They are converting their livery stable into a garage.

The recently formed Beguelin-Buschart Motor Car Co., St. Louis, Mo., has located at 4390 Oliver street. It will handle the Selden car.

The St. Louis Overland Co. has changed its title to Overland Motor Car Co. It will continue business at 3907-11 Olive street, St. Louis, Mo.

Frank D. Gregory has opened a garage at 22 Commerce street, Derby, Conn. In addition to garage work, he will make a specialty of tire vulcanizing.

Fire on Sunday last, 17th inst., totally destroyed the garage of Kennitz & Bridgeman at Medina, N. Y. Nine automobiles were among the contents consumed.

Charles Sanford has placed contracts for the construction of a concrete garage on Coleman street, Bridgeport, Conn. It will be a two story structure, 32 x 55 feet.

The Clarksville Auto Co. has been formed in the Tennessee city of that name, to handle the Marathon car. A. C. Murray is manager of the new concern.

The Thames Garage, New London, Conn., has been discontinued. Executions levied by several small creditors induced the owner, George Keeney, to cry quits.

Andrew Gresch and Martin Connor are building a two-story garage at York road and 69th avenue, Philadelphia, Pa. Its dimensions are 48 x 73 feet and its cost $4,600.

The Susquehanna Motor Car Co., Wilkesbarre, Pa., has leased the building 37 West Market street, which is being refitted for its occupancy. The company has the Cadillac agency.

The Lane-Lynch Motor Co. has been organized in St. Louis, Mo., to sell the Owen car. W. E. Brearley, former manager of the local Franklin branch, will manage the new concern.

Brown & White Motor Car Co. is the colorful style of a new firm in New Orleans, La., which has been formed to sell Rambler cars. It is composed of Lee Brown and H. A. White.

The Crenshaw-Mills Auto Livery Co., Little Rock, Ark., has been succeeded by the firm of Crenshaw & Mills. The change was brought about by C. E. Mills's sale of his stock to Roy L. Mills.

Sanford Smith & Co., have succeeded the firm of Smith & Vosburg as proprietors of the Riverside Garage, Saranac Lake, N. Y. W. R. Vosburg has retired and his interest has been acquired by Fred Smith.

J. J. Bartram has purchased the Atlas Garage on New Hampshire avenue, Washington, D. C., which is devoted exclusively to electric vehicles. He has installed five rectifiers and purposes putting in five more.

A. F. Parkes, who has been selling the Parry car in Nashville, Tenn., has secured the agency for the Velie also, and hereafter will do business as the Velie-Parry Sales Agency. He is located at 1207 Broadway.

Contracts have been let for the erection of a garage at Jackson street and Broadway, Louisville, Ky., for the Broadway Automobile Co. The structure will be a two-story brick building and will cost $10,000.

Frank C. Riggs, the Packard agent in Portland, Ore., has removed to 23rd street and Cornell road, where the new Packard service building is located. Previously, Riggs was located at Seventh and Oak streets.

Bert Brown and George Weck have formed a partnership and opened a garage at Scott and Third streets, Davenport, Iowa. Both are experienced automobile men. They have the agency for the Haynes car.

The Norcross Garage, Worcester, Mass., has taken possession of its new building at Commercial and Exchange streets. The structure at Foster and Commercial streets, which it vacated, has been leased by the Belmont Auto Co.

D. O. Royster, having disposed of his interests, the title of the Heir-Royster Automobile Co., 3432 Shenandoah avenue, St. Louis, Mo., has been changed to the Henry Heir Automobile Co. Appersons, Carter-cars and De Tambles will continue to be carried.

The B. C. K. Motor Car Co. of Philadelphia has been purchased by W. D. Shepherd and T. W. Pritchard, who comprise the Krit Sales Co. of that city. The purchase carries with it the agency for the Klinekars, which hereafter will be handled in connection with the Krit.

Fire, caused in some way during the filling of a tank with gasolene on the 13th inst., gutted the garage of Matthew De Freest, 46-48 Hamilton street, Albany, N. Y. De Freest operated a taxicab service and lost 11 cabs in the flames. The loss, which is covered by insurance, is placed at $25,000.

Following the action instituted by J. J. O'Toole, one of the partners, receivers have been appointed for the Southern Automobile Sales Co., Washington, D. C., and the business will be wound up. O'Toole and his partners, W. B. Murray and B. F. Anderson, disagreed and O'Toole carried their quarrel to court.

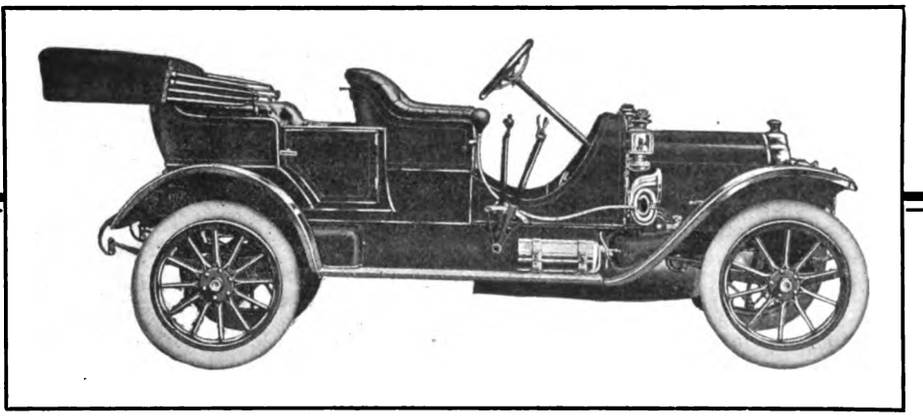
Although A. Zubiria is president of the International Motor Sales Co., an Arizona corporation doing business in San Antonio, Tex., he alleges that the vice-president, W. F. Milner, is running things to suit himself. Accordingly he has applied for a receiver to wind up the business which he charges is being run at a loss.

The garage of the Fairchild Automobile Co. at St. Charles and Girod streets, New Orleans, La., which just has been completed is claimed to be the most magnificent structure of the sort in the South. It is two stories high, 120 x 150 feet, of brick and concrete construction. It will house Winton, Peerless and Rauch & Lang cars, for which the Fairchild company is agent. The structure measures 36 x 40 feet.

Oliver Twist probably does not want any more of the garage business—not Dickens's Oliver but the one who owned and operated the American Automobile Garage on South Clinton avenue, Trenton, N. J. The Trenton Twist has filed a voluntary petition in bankruptcy which gives his liabilities as $4,193.68 and his assets as $2,374.25. Before venturing into the automobile trade, Twist was a successful druggist.

George F. Lombard and Arthur F. Herbert, who comprise the Haverhill Motor Car Co., Haverhill, Mass., have fallen apart and Lombard has gone to court to settle their troubles. He alleges that although anxious to dissolve the partnership, as terms could not be agreed on, Herbert precipitated matters by seizing a Johnson car owned by the firm and by threatening to seize another. Accordingly Lombard has applied for a receiver and for an injunction restraining Herbert. The court granted a preliminary injunction and will take testimony next month.

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# If You Could Go Through Our Factory

IF you could go through our factory to see just how carefully each part of our cars is built there would be no question as to the ones you would buy. Nearly everyone has something of an idea how carefully the work must be done on an automobile, but when one is actually in the presence of the countless operations — the refinement of processes, even a layman knows it means "well built."

If we knew a better way — if we thought it possible to find a better way to build our cars we would immediately seek it. It is our ambition to build the most reliable and durable cars in the market — we have left no stone unturned to accomplish the result, and the kind and quality of service shown by the hundreds of cars in operation, are the sure proofs that we are right.

### Answering Your Questions on White Gasoline Cars

A motor of twenty to thirty h. p. The four cylinders cast *en bloc* are imported from France.

The bore is 3¾-inch, with 5⅛-inch stroke, giving the utmost pulling power at low speed on the high gear.

Four forward speed transmission of the selective type with direct drive on third. This type of transmission permits the speed of the motor to always remain in the range of its greatest efficiency, no matter how fast or slow the car moves.

The cooling is by gear-driven pump and the costly "Honeycomb" radiators.

There are two general models, G-A and G-B, using identical engines. The model G-A has 110-inch wheel base, ignition by Bosch Magneto—priced with full equipment, excepting top, at $2,000. With torpedo body at $2,250.

Model G-B has 120-inch wheel base, ignition Bosch Magneto and batteries. Has the same equipment as model G-A plus foot-rail and tire-irons—priced at $2,500. Limousine $3,600. Landaulet $3,800.

We make both steam and gasoline propelled cars.
Catalogues and other literature of either gladly sent upon request.

# THE WHITE COMPANY

**830 EAST SEVENTY-NINTH STREET CLEVELAND, OHIO**

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## The Most-for-the-Money Movement.

Automobile buyers who are inclined to seek the most for their money and who measure quantity in that sense in terms of the number of accessories and other equipment features included in the original purchase price of the machine, are destined to have an increasing range of choice as time goes on. At least that is the supposition which is borne out by a consideration of such new models as already have appeared together with such inklings as may be obtainable as to the probabilities of those as yet unannounced. There is every reason to believe that the example set last year by a number of manufacturers in listing their products fitted out ready for the road will be followed by a considerable number of others in the near future.

This prospect is an interesting and, in some respects, a valuable one, for the prospective purchaser, particularly if he be of the eager though timid class which is about to encounter its first experience in the realm of the automobile. For such it provides a stout bulwark against the wiles of the unscrupulous dealer who would induce the inexperienced to load up with needless and unsuitable paraphernalia. It ensures that the novice's car shall be equipped with only such appliances as may be considered really essential, with the possible exception of the speedometer, and that the quality of the fittings will be of a suitable nature.

From the manufacturers' point of view the prospect also is interesting because of its advertising value and also by reason of the fact that it affords means of curtailing the practice in which some agents indulge so extensively, of "giving away" accessories with the car and thereby accomplishing a virtual cutting of prices without actually affording the manufacturer tangible means for redress. In this connection it may be observed that the manufacturer who adds to the free equipment included with the car stands in the same advantageous light of generosity as does his agent under similar circumstances. Irrespective of the nominal value of the extra equipment; the actual cost outlaid is represented by quantity price, which, in the case of the maker, is far enough below list to render the tax upon his generosity far from severe.

The increasing movement for liberal equipments may not be viewed with unmixed approval by the accessory manufacturers, since they may be expected to prefer the advantages of the long market price in disposing of their wares. At the same time equipment business is not without its advantages in providing a steady income. Besides, there is left undisturbed that huge market which arises from the refitting of used cars and the ever-ready requirements of the active motorist for replacements.

## Where Cars are Made or Marred.

With the return of the season for announcements of new products and the activity in the factories which it evidences, it may be well to throw in a word of caution as to the need of care in the assembling process. More than once in the past it has been pointed out that many a good car has been spoiled by careless or hasty treatment on the assembling floor, and recent experience with more than one machine has shown that, in some quarters at least, the caution has not been heeded.

It is a threadbare fallacy which argues that good engineering applied to the design of a product and skilful planning outlaid in routing materials in process of manufacture must ensure a perfect machine. Industrial systems reduce the effect of the human equation by cutting it out of nearly all elementary processes, but they cannot eliminate it from the final and critical step in which the parts are brought together and adjusted.

For example, a lot of chassis may be put through hurriedly without proper care being taken to see that the bevel driving gears are meshed correctly. The result will be that a large proportion of that particular lot of machines sooner or later will require new sets of driving gears. Or, through some slight error in the setting of a drilling templet, one lot of frames may have to be "drifted" in order to get motors and transmissions into place. The chances are pretty strong that not a few of those cars will suffer from warped frames or broken crank case or gear box arms. It is useless to enumerate the ways in which whole groups of cars may be rendered unsatisfactory through hasty work on the floor; it is more important to guard against the difficulty which gives rise to such troubles.

Back of the product, back of the system which produces it, is an organization which has the double responsibility of production and marketing. This double responsibility frequently gives rise to a division of interests so great as practically to clog the entire administrative and subordinate mechanism. The factory forces regard the selling end as both pampered and ineffective. From the field the factory is looked upon merely as "the organization which produces our cars."

It is the troublesome and at times seemingly impossible task of the central organization to preserve due harmony between these equally important divisions of its forces and to safeguard the men who produce the cars against the harryings of the men who produce the customers. For that is where the difficulty oftenest lies.

Wise and thriving manufacturers provide double inspection systems, isolate manufacturing and sales departments and themselves oversee the work of both with a view to excluding the effects of haste and conflict. In the last analysis, the assembling floor becomes the buffer territory into which are carried a large proportion of the organization's disagreements. Therefore it

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is entitled to double protection as well as to the closest scrutiny. For it is there that the product is either finished perfect or just "thrown together;" there it is made or marred.

### Why is the Muffler Cutout?

With the multiplication of ordinances against the use of glaring headlights within city limits and the omission of smoke and the more rigid enforcement of anti-speeding regulations, it is not unreasonable to suppose that the day of the muffler cutout is drawing toward its close. Indeed, many localities already have their measures forbidding its use, and while generally dormant, it is likely that they may be brought into active use at almost any time. Such being the case it is worth while to inquire as to the real value of the cutout and whether it has not already outlived its usefulness in most instances.

Originally applied in the days when every ounce of power the motor could produce was likely to be called into requisition, the additional power which it lends the modern motor for propulsive purposes no longer is to be regarded as of very great importance. As a matter of fact, the average muffler detracts not more than two or three per cent. from the power of the engine, and that amount, of course, measures the additional increment which the use of the cutout places at the disposal of the operator. For a manufacturer to urge that the cutout is an absolute necessity for the car is to acknowledge that the muffler absorbs an unusual amount of power, or else that the car is under-powered; neither argument is likely to be a welcome one to the maker whose reputation is at all at stake.

Aside from the power consideration, the only real use of the cutout is for signaling purposes. In that way it has come to be of considerable service to the motorist, and in many sections of the country it is recognized as a legitimate form of alarm. At the same time it is questionable whether it is to be preferred to the more stereotyped forms of signal device, particularly for the reason that it is not employed for signaling purposes alone. Indeed, the use of the exhaust blast as a warning signal savors rather too much of license in the matter of speed to be altogether encouraged.

There no longer is any reason why the relation of engine power to car weight should not be so proportioned as to afford ample reserve without the open muffler. In other respects manufacturers are striving in every way possible to reduce the noise made by the machine. Muffler design itself is improving, and is likely to improve in the near future in common with other betterments in engine construction. Just why it should be considered necessary to continue to furnish the cutout pedal with the average stock machine really is difficult to explain.

## COMING EVENTS

July 18-23, Milwaukee, Wis.—Wisconsin Automobile Association's first annual endurance test for "Milwaukee Sentinel" trophy.

July 22-23, Columbus, O.—Automobile meet; W. H. Wellman, promoter.

July 22-27, St. Paul, Minn.—Minnesota State Automobile Association's second annual reliability run for the "Dispatch" trophy; 660 miles.

July 23, Brighton Beach, N. Y.—Motor Racing Association's race meet on mile dirt track.

July 23, Atlanta, Ga.—Atlanta Automobile Association's race meet on Speedway.

July 24, New Braunfels, Tex.—San Antonio Automobile Club's hill climb.

July 25, Chillicothe, O.—Order of Owls track meet.

July 25-27, Cleveland, O.—Cleveland Automobile Club's reliability run.

July 27-28, Pittsburg, Pa.—Automobile races at Brunot's Island.

July 28-29, Chicago, Ill.—Chicago Automobile Club-Chicago Athletic Club third annual interclub reliability team match.

July 30, Long Island Motor Parkway, N. Y.—Motor Parkway Inaugural Sweepstakes.

July 30, Salt Lake City, Utah—Salt Lake "Telegram's" third annual hill climb.

July 30, Wildwood, N. J.—North Wildwood Automobile Club's race meet on Wildwood Speedway.

August 1, Minneapolis, Minn.—Minneapolis Automobile Club's reliability run.

August 3-5, Galveston, Tex.—Galveston Automobile Club's beach races.

August 4, Algonquin, Ill.—Chicago Motor Club's annual twin hill climb.

August 6, Philadelphia, Pa.—Quaker City Motor Club's race meet at Point Breeze track.

August 6, Wildwood, N. J.—North Wildwood Automobile Club's beach race meet on Ocean drive.

August 9-10, Brooklyn, N. Y.—Brooklyn Motor Vehicle Dealers' Association's 200 miles reliability contest on Long Island.

August 12-13, Philadelphia, Pa.—North American's reliability run for commercial motor vehicles to Atlantic City, N. J., and return.

August 15—Start of second annual Munsey Historical Tour from Philadelphia, and terminating at Washington, D. C.; 1,700 miles.

August 19-20, Brighton Beach, N. Y.—Motor Racing Association's 24 hours' race at Brighton Beach mile track.

August 20, Columbus, O.—Columbus Automobile Club's race meet.

August 23, Cheyenne, Wyo.—Cheyenne Motor Club's race meet on motordrome.

August 26-27, Elgin, Ill.—Chicago Motor Club's road race and speed carnival.

August 31, Minneapolis, Minn.—Minnesota State Automobile Association's reliability run.

August 31-September 8, Kansas City, Mo.—Automobile Club of Kansas City's reliability contest.

September 2, 3 and 5, Indianapolis, Ind.—Grand Circuit meeting on Motor Speedway

September 3, Wildwood, N. J.—North Wildwood Automobile Club's reliability run to Philadelphia.

September 5, Denver, Col.—Denver Motor Club's 200 miles road race.

September 5, Wildwood, N. J.—North Wildwood Automobile Club's beach race meet on Ocean drive.

September 5-10, Minneapolis, Minn.—Automobile races at state fair grounds.

September 7-10, Buffalo, N. Y.—Automobile Club of Buffalo's touring reliability contest; 800 miles.

September 9-10, Providence, R. I.—Rhode Island Automobile Club's annual meet at Narragansett Park.

September 10, San Francisco, Cal.—Automobile Club of California's Portola road race in Golden Gate Park.

September 10-12, New York City—Motor Contest Association's Catskill tour and hill climb.

September 15, Oklahoma City, Okla.—Oklahoma Automobile Association's hill climb.

September 15, 16 and 17, Lowell, Mass.—Lowell Automobile Club's road race.

September 17, Norristown, Pa.—Norristown Automobile Club's race meet.

September 18, Syracuse, N. Y.—Automobile Club of Syracuse-Syracuse Automobile Dealers' Association joint racemeet at Fair Grounds track.

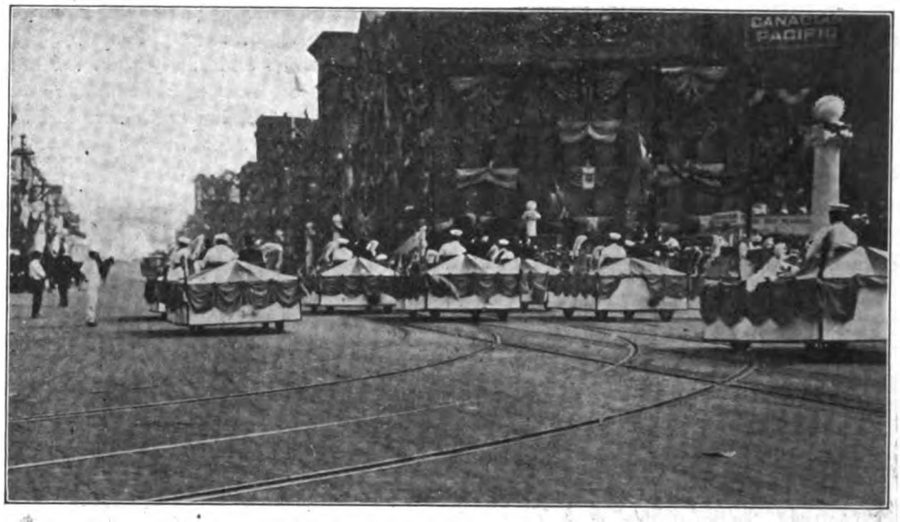
September 24, Santa Monica, Cal.—Southern California Automobile Dealers' Association's annual road race; 200 miles.

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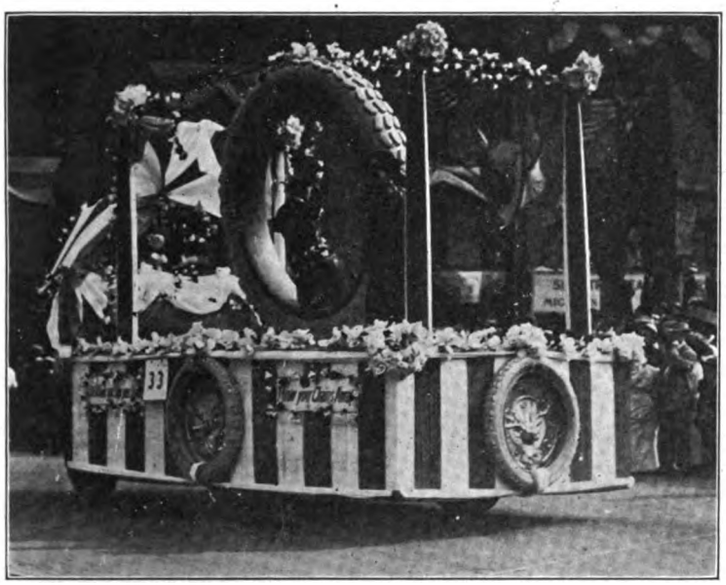
## DETROITS PRODIGIOUS PAGEANT

**More than 1,500 Motor Cars Parade for the Elks—Some Striking Decorations—The Prize Winners.**

If any of the 20,000 Elks and their friends who partook of Detroit hospitality in innumerable forms last week on the occasion of the annual convention of the order in the Straits City are not thoroughly convinced of the all around supremacy of Detroit as an automobile city, they must indeed be a skeptical sort. For not only as a producer of automobiles does Detroit lead every city in the world, but also on Friday, 15th inst., it for the second time staged the largest parade of motor cars ever held; there were more than 1,500 cars in line.



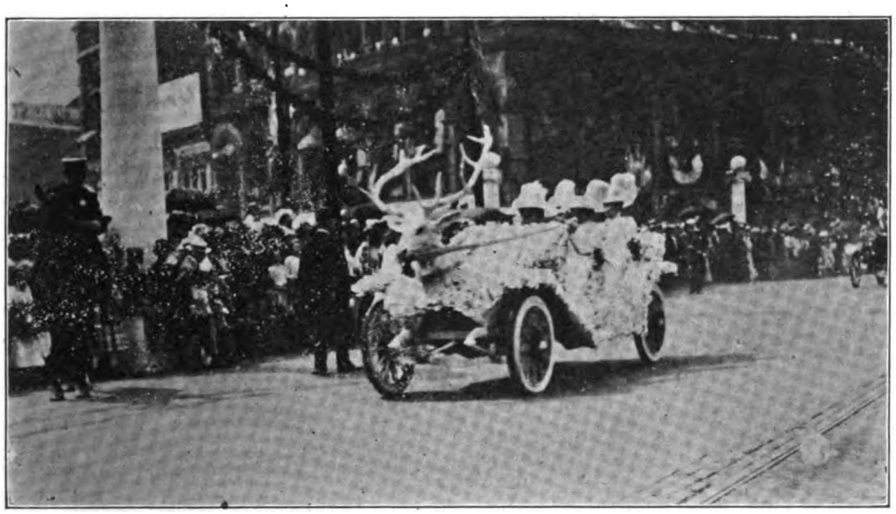
THE FLOATS THAT CARRIED THE POLICE ESCORT



MORGAN & WRIGHT'S STRIKING DISPLAY



THE HISTORICAL FLOAT THAT WON CHIEF AWARD



MRS. ALDRICH'S CREATION THAT WAS AWARDED WOMAN'S PRIZE

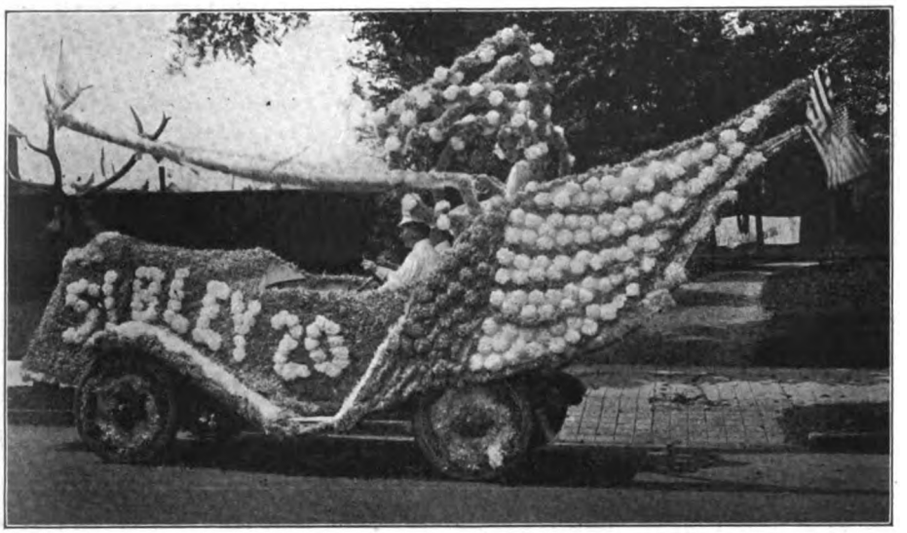
The pageant was over 11 miles in length and was witnessed by more than 50,000 people. Not only did it surpass in size Detroit's initial effort in pageantry at the send-off of the Glidden Tour last year, when over 1,200 machines passed in review, but the Elks' tournament eclipsed anything of the kind ever held elsewhere, although there are plenty of cities capable of mustering more cars. It must have been local pride in the city's chief industry that was responsible for the immense fleet of cars in fancy dress and plain attire which rolled through the streets of their native town.

Those who either were unfamiliar or else had forgotten what the automobiles of a decade ago looked like had their memories refreshed, for there were cars of all sorts and sizes from the humble curved-dash runabout, the first born of Detroit motordom, to the handsome and glistening 1911 models, many of which were uncovered to public gaze for the first time. The parade consisted of 42 divisions, all of which were well filled.

Without doubt the most striking creation was the Cadillac display reproducing a painting in the Detroit city hall depict-

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ing Louis XIV presenting a commission to Chevalier Cadillac to found a colony at Detroit. The occupants of the float were dressed in the costume of the period and went through the pantomine in creditable style. This float easily won for the Cadillac company the chief award, the grand sweepstake prize, a gold lined cup 30 inches high. First honors for cars driven




THE SIBLEY CAR THAT CARRIED A PHONOGRAPH

by women were captured by Mrs. R. D. Aldrich, driving a Chalmers 30. Her car was decorated with carnations and violets, while on the radiator was an immense Elk's head with ribbons leading from the antlers to the dash. The four women occupants of the car also were attired in white and purple. The award was a silver iced tea set.

The adoption of an Elk symbol, a clock with the hands pointing to the hour of 11 o'clock, and miniature elk heads over the lamps, won for Mrs. J. G. Bollinger's Warren-Detroit first prize in the gasolene pleasure class. The car was decorated with white carnations set off with purple, but it was the radiator adornment which caught the fancy of the judges and influenced their decision. No other car carried the mystical timepiece with the hands denoting the eleventh hour. Second prize in this class was taken by W. B. Wreford's Columbia, and a most impressive and beautiful display it was. The body of the float was worked out in colored flowers, the sides representing American flags, while the slanting prow in front carried a field of white in which was worked the familiar Columbia scroll. Surmounting the float was a huge throne of red, white and blue, occupied by a young woman impersonating Columbia, the throne being surmounted by a canopy of the same colors. Third prize in this division went to the Sibley Motor Car Co.'s entry, which was dressed in purple and white and carried an Elk head in front.

The inimitable Michelin Bibendum twins, whose hilarious antics have made hundreds of thousands laugh wherever they have appeared, were more amusing than ever, if possible, and easily took the laurels in the comic division, a Tiffany electric lamp. The evolutions of these inflated rubber figures were a distinct cause for wonderment to many Detroiters who never before had seen them. No other awards were made in this class, the judges considering that no other display was worthy of such recognition. The electric class also came in for censure, the showing being so poor that no prizes whatever were awarded.




THE LARGE AND IMPRESSIVE COLUMBIA FLOAT

In the commercial division, a Welch-Detroit gained the approbation of the judges for first prize, a chest of silver. It bore a float depicting a scene from the battle of Bloody Run, an engagement between the Indians and British in Colonial times. The A. A. Grak Co., which took second prize in this class, drew on the forest for their display, and showed a family of deer. The central figure on the Morgan & Wright float was a huge Nobby Tread tire with a youngster swinging in the enclosure. This impressed the judges sufficiently to receive third prize. Several cars received honorable mention for the attractiveness of their decorations, among them being the Brush and Johnson cars.

Forming on the boulevard the pageant, headed by 16 carloads of police, four abreast, moved down Woodward avenue, looping the city hall where it was reviewed by the city dignitaries and grand lodge officers. It required 50 minutes to pass the reviewing stand. Many of the local makers were strongly represented, some divisions being composed almost or entirely of one make of car. Some particularly large turnouts were made by Oakland, Buick, Hupmobile, Brush, Maxwell, E-M-F, Hudson and Everitt.

As a sort of finale to the entertainment provided for the Elks during their stay in Detroit, the Buick racing team gave an impromptu "racemeet" at Grosse Point track on Saturday afternoon, 16th inst. No admission was charged and about 2,000 people witnessed the "races," which chiefly were exhibitions and friendly brushes between the leading drivers on the team. It strictly was a Buick function throughout, no other cars or drivers competing. Burman drove his big special a mile in 56⅘ seconds, which was claimed as a new record for the track.

### Roosevelt at Last Buys a Car.

Dissipating a number of conflicting reports, the New York registration list of the current week proves that former President Theodore Roosevelt himself actually and at last is the owner of an automobile. It is a Haynes, registered in his own name. Its registration number is 108,248, which of course will be changed on August 1st, when the new law goes into effect in this State.

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## WHEELING SEES OLDFIELD WHIRL

**And of Course More "Dirt Track Records" are Shattered—Local Drivers Furnish an Exciting Collision.**

Rather than disappoint the crowd of 5,000 people who, through advance stories of their prowess had been led to expect great things of them and, accordingly, had contributed collectively a round sum to see their little repertoire, the Oldfield-Kirscher combination broke at least one "world's record for a mile on a circular half mile track," in addition to a few local marks at the Ohio Valley Automobile Club's matinee at the Fair Grounds half mile track, Wheeling, W. Va., on Saturday, 16th inst. Of course the visitors of national fame were practically the whole show.

It was Kirscher, the Flying Dutchman, who amazed the Wheelingites by hurling his Darracq twice around the half mile oval in 1:05½, which duly was announced as a new "world's record for half mile tracks," superseding Oldfield's figures of 1:06¼, made at Findley, O. Then the hero himself took several whacks at the newly created figures, but the best he could do was 1:06¼. He claimed that the Benz was too long to take the sharp turns closely. In one of his trials Oldfield added an extra dash of ginger by throwing a tire and making a fancy skid. The three miles handicap pursuit between Barney and Kirscher was well played, Oldfield winning by two lengths in 3:30. He was allowed 30 seconds by Kirscher, and permitted the latter to crawl up slowly until close on his rear wheels, when he beat off every d-e-sperate attempt of the Dutchman to go by.

Roy Eshenbaugh, Chadwick, and Dan Nee, Buick, had an interesting three miles match, the former winning easily in 3:51½. Nee was three lengths behind. The only mishap of the day occurred in a three miles handicap for local drivers, which had three starters, Ranson, Stevens-Duryea; Austin, Buick, and Eshenbaugh, Chadwick. The latter was on scratch, giving Austin 6 seconds and Ranson 50 seconds. Eshenbaugh caught the leaders in the third mile, and in attempting to pass Rankin on the inside Eshenbaugh swerved into the former. The Stevens was badly smashed in the collision, but the Chadwick came off lightly. The Buick won in 3:59½, the Chadwick taking second. The summaries:

Time trials—Kerscher, Darracq, 1:05½; Oldfield, Benz, 1:06¼; Austin, Buick, 1:18½; Eshenbaugh, Chadwick, 1:20½; Ranson, Stevens-Duryea, 1:41.

Three miles match—Won by Eshenbaugh, Chadwick; second, Nee, Buick. Time, 3:54½.

Three miles pursuit handicap—Won by Oldfield, Knox (0:30); second, Kirscher, Darracq (scratch). Time, 3:30.

Three miles handicap, local drivers—Won by Austin, Buick (0:50); second, Eshenbaugh, Chadwich (scratch). Time, 3:59½.

### 24 Badgers in 800 Miles Contest.

With a representative field of 24 contesting cars, the largest and most pretentious motoring function ever staged in Wisconsin got under way at 7 a. m. on Monday morning, 18th inst., when the Wisconsin State Automobile Association's six day reliability contest for the Milwaukee Sentinel trophy officially was inaugurated. It will end Saturday evening next.

The starters were the following: Edward Collier, Rambler; Arthur Gardiner, Rambler; E. W. Arbogast, Badger; Carl Kobersteen, Badger; E. P. Wilkins, Mitchell; August A. Jonas, Cadillac; Wendell L. McEldowney, Jackson; William Fisher, Buick; F. Hokanson, Buick; N. C. Rice, Kisselkar; W. R. Rice, Kisselkar; Arthur Ove, Kisselkar; Lewis Strang, Pierce-Racine; J. W. Eviston, Johnson; Ross Neuwood, Ohio; F. L. Buckbee, Pope-Hartford; George L. Thomas, Reo; Gordon Bird Corbin; W. H. Diener, Ford; M. E. Springer, Franklin; John Heber, Overland; Chester Cheney, Staver; G. D. Waite, Petrel. and George W. Browne, Marion. The only entrant who did not start was R. D. Rockstead, Warren-Detroit.

The route, which is 808 miles in length, embraces several of the larger cities of the state, and the night stops are as follows: Monday, Madison; Tuesday, La Crosse; Wednesday, Eau Claire; Thursday, Merrill; Friday, Appleton; Saturday, finish at Milwaukee.

### American Cars Score in Canada.

Exciting finishes marked the annual race meet of the Winnipeg (Man.) Automobile Club, which was held on Wednesday, 13th, in connection with the opening of the 1910 Winnipeg Industrial Fair. It was an amateur meet, and although the track was very dusty some good sport resulted, three events being run. Walker, in a Russell, a Canadian car with Knight sliding valves, was one of the competitors, but he was beaten by Howe, in a Mason-Maytag, an Iowa product. The summaries:

Five miles, stock cars 190 cubic inches—Won by McQuarry, Croxton-Keeton; second, Howe, Mason-Maytag. Time, 7:30.

Five miles, stock cars 221-260 cubic inches—First heat won by Walker, Russell; second, McQuarry, Croxton-Keeton; third, Brown, Kisselkar. Time, 7:31⅕. Second seat won by Howe, Mason-Maytag; second, Brown, Reo. Time, 7:20. Final won by Howe, Mason-Maytag; second, Walker, Russell. Time, 7:13.

Two miles, to decide third positions in preceding event—Won by Brown, Reo; second, McQuarry, Croxton-Keeton.

## OVERHAULING CONTEST RULES

**Manufacturers' Committee Meets for the Purpose at Niagara Falls—No Radical Changes are Likely.**

An all-day session of the active rules committee of the Manufacturers' Contest Association was held at the International Hotel, Niagara Falls, Thursday last, 16th inst. Chairman Howard E. Coffin presided. The other members of the committee in attendance were: Geo. A. Weidely, Premier Motor Mfg. Co.; Alanson P. Brush, Buick Motor Co.; Geo. H. Strout, as proxy for Edgar Apperson, Apperson Bros. Automobile Co., and Russell A. Field, assistant secretary-treasurer. By invitation there were present: H. O. Smith, vice-president of the Manufacturers' Contest Association; S. M. Butler, chairman of the contest board of the American Automobile Association, and A. L. McMurtry, chairman of the technical committee of the American Automobile Association.

Suggestions for changes in the contest rules to govern for 1911 submitted by members, non-members and registered drivers were given individual attention. Where in the judgment of the committee the suggested change was desirable, recommendations were made which will be referred for action to the general rules committee of 25. All of those present were heard regarding the rules to be adopted for next year, with the result that practically the entire work done will be presented to the general rules committee for consideration before the meeting of this body, which will occur some time in September, close to the dates to be set for the board meetings of the National Association of Automobile Manufacturers and the Association of Licensed Automobile Manufacturers. After being thoroughly discussed and acted upon at the September gathering, the proposed changes will again be referred back to the active rules committee, and by them finally submitted to the contest board of the American Automobile Association.

Practically all of the suggestions made were on matters of detail and making clearer portions of the rules which in their present state may be open to more than one interpretation.

### Quakers Program Six Hours' Race.

Expanding its original card of short events quite appreciably, the Quaker City Motor Club of Philadelphia has announced a six hours' race as the topliner for its track meet at Point Breeze on August 6th. The quarter-way-round-the-clock jaunt will be open to all stock cars and will carry emoluments aggregating $2,000, divided on a basis of $1,000, $750 and $250 respectively.

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## DAYTON HAS A THREE DAYS MEET

**Hughes, Endicott and Woverries Divide the Honors—Close Fnishes and Minor Mishaps Mark the Events.**

With the assistance of a few imported factory drivers to add zest to the doings of the local talent, the Dayton (O.) Automobile Club managed to give the good sized crowds which attended its annual meet on the fair grounds track on the 15th and 18th inst. some fairly good sport for their money.

While no records were broken, some close and exciting brushes occurred, the honors being about equally divided between Hugh Hughes, Bill Endicott and Otto Woverries, the latter a local crack. There also were a few mishaps to lend spice to the function but the casualties were confined entirely to the cars concerned. The fields were small, but this was compensated for by the thrills which were uncorked in close succession. Opening on Friday, the second day's program, which was scheduled for Saturday, was postponed to Monday on account of rain.

On Friday the spoils were quite evenly distributed, no one taking more than one event, the feature race, a five miles match, being captured by Hughes. Woverries accounted for the five miles open, and Michaels, Hupmobile, had a walkover in the less than $900 class. Monday's racing was the best of the meet, and with Hughes put out of the running by an accident, Endicott and Woverries practically cleaned up the card. Endicott pilfered the star event, a free-for-all, while Woverries trimmed the former in the 10 miles open.

Friday, 15th—First Day.

Consisting largely of exhibitions and minor events, the opening day's card on Friday afternoon, 15th inst., served to whet the crowd's appetite for what was to have occurred the next day. Hughes, the ex-Vanderbilt pilot, was up in a Parry, and with Bill Endicott in a Cole put up the best sport of the day in a five miles event. It was nip and tuck all the way, Hughes beating his rival to the tape by a foot. Time, 7:34⅘. In the exhibition series, Hughes spun a mile in 1:19, and Endicott looped two circuits in 2:45. Otto Woverries, Buick, had a hollow victory in his five miles match with Ralph Devoe, Overland, the latter being retired with engine trouble. Woverries's time was 6:51.

The best time of the day was made by Hughes in an attempt to lower the track record of 1:14⅗ by Oldfield, and although he failed to touch the barnstormer's figures he was clocked in 1:16. After having the two miles match for cars under $900 practically won, Earl Devoe, a 12-year-old youngster, who drove a Ford, was robbed of a victory in the last lap by his engine quitting, and H. P. Michaels, Hupmobile, carired off the honors. Time, 3:10. The summaries:

Two miles match for cars not over $900—Won by H. P. Michaels, Hupmobile. Time, 3:27. Earl Devoe, Ford, also started.

Two miles novelty—Won by Shartel, Buick; second, Hughes, Stoddard-Dayton. Time, 3:45.

Five miles match—Won by Hughes, Parry; second, Endicott, Cole. Time, 7:34⅘.

Five miles match—Won by Otto Woverries, Buick. Time, 6:51. Ralph Devoe, Overland, did not finish.

Time trials, 1 mile—Hughes, Parry, 1:16; Woverries, Buick, 1:19; 2 miles—Endicott, Cole, 2:45.

Monday, 18th—Second Day.

Heavy rains on the previous night having rendered the track unfit for racing on Saturday, the events scheduled for the windup of the meeting were postponed to Monday, when Otto Woverries, a local pilot, was the star of the accasion. He captured three firsts and one second. His victories, however, all were well earned, Bill Endicott, in the Cole, pressing the local man hard for the honors. Endicott also distinguished himself by making away with the free-for-all in fine style after winning his class.

Hughes and his Parry were the central figures in a spectacular smash in the 231-300 division, five miles to go. On one of the turns a front wheel flew off and crashed through the fence and brought up in the stables, while Hughes managed to bring the car to a stop at the edge of the track and right side up. The race was stopped at 3½ miles and awarded to Woverries who was leading. Devoe, Overland, took second. Time, 4:58.

Another flurry of excitement was caused when Woverries and Devoe locked wheels in a five miles race, but both cars separated with only slight damage. The free-for-all was the best race of the day, Gilchrist, Stoddard-Dayton, and Endicott, Cole, mixing it hotly all the way, but the latter's handicap proved just a bit too great to be overcome, and he won by a close margin. Time, 10:25. About 1,000 people were present.

The summaries:

Five miles, stock chassis 230 cubic inches and under—Won by Woverries, Buick; second, Endicott, Cole; third, Edmunds, Cole. Time, 6:43.

Five miles, stock chassis 231-300 cubic inches—Won by Woverries, Buick; second, Devoe, Oveland. Time, 4:58. Stopped at 3½ miles on account of accident.

Seven and one-half miles free-for-all—Won by Endicott, Cole; second, Gilchrist, Stoddard-Dayton; third, Edmunds, Cole. Time, 10:25.

Three miles free-for-all—Won by Fritsch, Buick; second, Gilchrist, Stoddard-Dayton. Time, 4:37.

Five and one-half miles, stock chassis 161-230 cubic inches—Won by Endicott, Cole; second, Woverries, Buick; third, Edmunds, Cole. Time, 6:55.

Ten miles free-for-all—Won by Woverries, Buick; second, Endicott, Cole; third, Fritsch, Buick. Time, 13:30⅗.

**Trophy Awarded After Year's Delay.**

Further exemplifying the reward which finally comes of unflagging perseverance, the Premier Motor Mfg. Co., of Indianapolis, Ind., after a spirited struggle extending over a year and a half, at last has secured the fruits of its victory in the Quaker City Motor Club of Philadelphia's mid-winter endurance run on January 1-2, 1909, in the shape of the McDonald & Campbell trophy, which was won permanently by Ray McNamara with a Premier. As the third and final struggle for the trophy, the contest was held over fearful snowbound roads, and the triumph of the Premier, although well earned, was vigorously opposed at every step on technical grounds by the Quaker City club in the appeal to the contest board of the American Automobile Association, which decided in favor of the winner. The cup disappeared but was finally located when the A. A. A. brought pressure to bear.

**Morgan's Derby Blows Off Unnoticed.**

Something or other knocked Morgan's Long Island Derby into a cocked hat, which is to say that the Derby was not run on either Friday or Saturday last, in conjunction with the other road races which Mister Morgan had scheduled for those days. He has them sanctioned under his once pet name, Motor Contest Association, and it was expected that they would cause lots of automobile money to circulate in Riverhead, L. I., but the biting on Morgan's hook has not been very good of late and the Derby and all the rest fell through and never were missed. Their quiet abandonment did not even excite mention in the daily press, so completely had they been forgotten.

**McIntyre Heads Sharon's New Club.**

With a membership of nearly 200, the Mercer County Automobile Club has been organized at Sharon, Pa. The following officers were elected for the first year: President, William McIntyre; vice-president, Leon Robbins; secretary-treasurer, Guy Marshall; solicitor, H. W. Davis.

**Automobile Club to Buy Road Drags.**

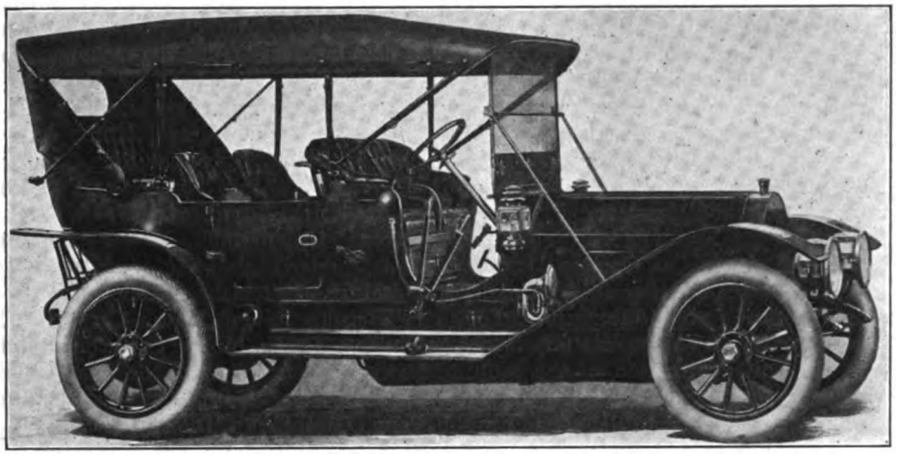
Buying King split-log drags and co-operating with the farmers in improving the highways is the object of the Beaver Dam Automobile Club, Beaver Dam, Wis., which recently was formed with twenty-five charter members. Permanent officers have not been elected as yet.

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## REFINEMENT OF PIERCE-ARROW

### Wherein the Famous Line has been Made Even Better—New Bodies and New Mechanical Features.

With its usual promptness the Pierce-Arrow Motor Car Co., Buffalo, N. Y., already is making deliveries on one of its new models, while specifications of the others are promised within a few weeks. The model which has been given precedence in getting out the new line is the 66 horsepower chassis, with its wide range of body equipments. This is a six cylinder machine, the Pierce-Arrow product being exclusively a six cylinder one, and in most points it corresponds very closely with its immediate predecessor. In the matter of bodies adapted to be used with the large chassis, however, two significant additions have been made.



PIERCE-ARROW 66 HORSEPOWER CAR, FIRST OF NEW LINE

One is styled a "protected" touring car, and follows the initiative of the torpedo, but, instead of the radical lines of that type, embodies in rationalized form the principles of high sides and front doors, thus affording the occupants just the safeguard against dust and mud which its name implies. The other new body is the touring landau, which was presented first as a "show car" at the last Madison Square Garden exhibition, but which since has been converted into a regular type. This body is designed for luxurious touring purposes, and embodies in addition to special and unusually comprehensive interior appointments, carrying capacity for six trunks, luncheon kit, and a plentiful supply of tools.

The complete line of bodies for the 66 horsepower chassis includes the relatively new close-coupled body, which accommodates five passengers; the standard seven passenger touring car, seven passenger suburban, the four passenger small tonneau, three passenger runabout and, by way of closed cars in addition to the touring landau, the seven passenger standard landau. There are thus virtually eight different styles of car built upon the single chassis foundation.

With regard to the changes in the construction of the chassis, perhaps the most important are to be found in the motor where idler pinions have been introduced between the cam shaft gears, thus reducing the size and incidentally the peripheral speed of the two-to-one trains, and thereby reducing their noise-making properties. Another change is the placing of the secondary ignition wires in metallic protecting tubes, which, in addition to guarding them against mechanical injury serve to eliminate troubles due to induction such as have caused more or less difficulty with six cylinder motors in the past. Incidentally, the appearance of the motor is considerably improved.

In the selective change gear set an improvement has been made by adopting the telescoping pinion form of high speed clutch instead of the crab claw clutch which used to be employed. One particular advantage of this arrangement, of course, is the facility which it provides of securing the direct drive relation practically irrespective of the car speed. By the adoption of an improved method of encasing the universal joints in the propeller shaft improved lubrication is secured for those important members, while in all universal connections the pins will be secured hereafter by means of collars instead of taper pins, as in the past.

A more substantial support for the luggage rack and tool box at the rear of the frame has been secured by extending backward the gusset plates which reinforce the frame at that point. A slight change at the forward end of the chassis consists in the addition of an extra leaf to the semi-elliptical spring, which in addition to strengthening that member, brings the chassis practically up to the level.

By way of improving the facilities for operating the car a number of minor changes have been made. Thus, a foot accelerator pedal has been adopted as an auxiliary to the hand throttle which is mounted over the steering wheel. The accelerator is independent of the throttle as far as movement is concerned, though it cannot reduce the engine speed below the point determined by the position of the hand lever. The gear shifting lever and arm have been strengthened and a wooden steering wheel with metal embedded in it is a new feature.

A radical and commendable feature is the adoption of a special priming pump, which is mounted on the dash, and which is arranged to distribute gasolene directly to the inlet manifold. This device is intended to facilitate starting, and is particularly useful during cold weather. As on previous models, a power-actuated tire inflating pump is mounted on the left side of the motor in front. On the new models, however, the pump used will be of increased capacity and of original design and construction.

Another noteworthy point is the clearing of the running boards. With present construction, the only attachment on the right side of the car is the spare tire carrier, while on the left the battery box is the only equipment, and this, being of cast aluminum, has been worked into the design of the car in such a way as to be entirely unobjectionable.

Pierce equipment always has been extensive. With the new models it has been made even more liberal than formerly. It now includes the cape top and glass front, power air pump, trunk rack, gas headlights, combination oil and electric dash and tail lamps, an electric rear lamp for illuminating the number, shock absorbers, Prest-O-Lite tank, horn and tools, gasolene gauge and primer, odometer, tire carriers, sprag and a full lock equipment protecting the hood, tool compartment, dash cabinets and the supply box in the rear which houses the gas tank.

### Keeping Clasps and Straps Secure.

A broken hood clasp never should be neglected, nor should a car, normally equipped with a bonnet strap, be permitted to run for any distance minus that fastening. Although the risk may seem to be slight, the peril which follows the jumping off of a loose bonnet is too great to be risked for the sake of saving a few minutes time or a small amount of expense.

### Taxicabs Defined as "Common Carriers."

Taximeter cabs are held to be "common carriers" under the Michigan state law, according to an opinion by Attorney General Bird, at Lansing, the state capital. Because of this ruling all taximeter cab companies in the state will have to make application to the State Railroad Commission for permission to increase or decrease their capitalization.

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## ENGINEERS OUTLINE THEIR WORK

### The Great Wealth of Subjects that Will be Discussed at Detroit—How Factories Will be Visited.

There certainly will be no lack of topics for discussion at the meeting of the Society of Automobile Engineers, which is to be held in Detroit, on Thursday, Friday and Saturday, 28th, 29th and 30th inst. In addition to the transaction of formal business and the consideration of no less than 16 set papers, something over 40 live subjects are brought to the attention of the engineers on the program, and it is the intention of the program committee to bring up as many of them as there is time to consider. Nor will that be all there is to do.

Friday morning will be given over to factory visits, each member electing to visit three of the following establishments, which will be inspected by detachments of the society: Aluminum Castings Co., Burroughs Adding Machine Co., Cadillac Motor Car Co., Chalmers Motor Co., Detroit Steel Products Co., E-M-F Co., Gear Grinding Machine Co., Packard Motor Car Co., Timken-Detroit Axle Co. Afterward the party will assemble at the offices of the Timken-Detroit Axle Co. for luncheon on a yacht and an afternoon boat trip as guests of that company.

The society dinner will be held on Thursday evening at the Hotel Tuller, which will be the headquarters of the society during the meeting, while on Friday evening the ladies accompanying the party will be dined at Light House Inn.

The following subjects have been announced for the formal papers:

"The Specifications and Heat Treatment of Automobile Materials," by Henry Souther.

"The Test of a 20 Horsepower Franklin Air-Cooled Motor." Conclusion of paper by L. R. Evans and R. P. Lay, by Prof. R. C. Carpenter.

"Variation of Current Practice in Anti-Friction Bearings," by D. F. Graham.

"The Pyrometer—Its Development and Use," by W. H. Bristol.

"Testing the Hardness of Metals," by A. F. Shore and H. G. McComb.

"The Basis for Motor Car Taxation," by Charles Thaddeus Terry, legal advisor of the American Automobile Association.

"The Establishment of a Court of Patent Appeals," by E. J. Stoddard.

"How to Make Gears Quiet by Grinding," by Frederick A. Ward.

"Seamless Steel Tubes and the Necessity for Standardization in their Specifications," by H. S. White.

"Slide, Rotary and Piston Valves versus Poppet Valves for Gas Engine Service," by Eugene P. Batsell.

"Ill-Smelling and Smoky Exhausts," by F. D. Howe.

"Motor Trucks for Railroad Service," by T. V. Buckwalter.

"Test Data Upon Sheet Metal Frame Sections," by L. R. Smith.

"Nomenclature of Motor Car Parts." by F. E. Watts.

"Cork Insert Pulleys as Applied to Motor Vehicle Manufacturing Machinery," by Lawrence Whitcomb.

"Carrying Appliances for Tools, Tires, etc.," by H. H. Brown.

In addition to the regular papers, which are to be read at the various sessions in the order given, these topics have been listed for discussion as opportunity offers:

The Engineering Lessons to be Learned from the Motor Car Contest; Drive Shaft versus Rear Wheel Brakes; Three Point versus Four Point Suspension; The Responsibility of the Motor Car Engineer to his Company and to the Public; Wheel Alignments—Camber and Foregather; Hot Rolled Gears (teeth rolled in) for Transmission and Differential Purposes; Best Tooth Form for Quiet Gears, both Spur and Bevel; Valve Seat Angles; Driver's Seat on Left versus Driver's Seat on Right for Pleasure Car Purposes; Leaf Springs, Methods of Mounting and the Treatment of Springs by the Manufacturer and in the Hands of the Motor Car Owner; Magneto Efficiency; Current Practice in Lubrication and the Practical Results Obtained; Standardization Problems—those matters which deserve the united attention of the motor car engineers in an effort to simplify the purchasing department and deliveries problem; Proper Power and Speed for Gasolene Motors for Truck Purposes, and Proper Road Speeds for Vehicles of Different Capacities; Location of Motor for Commercial Vehicle Work—in Front under Bonnet or under Seat; Long Stroke versus Short Stroke Motor—Advantages and Disadvantages of Each; Driver's Seat on Left versus Driver's Seat on Right for Commercial Car Purposes; the Edison Battery in Practical Vehicle Service; Electric Vehicle Mileage; Fool-proofing the Commercial Car Mechanism and Its Control; Standardization Possibilities Within the Commercial Car Field; A Proper Nomenclature in the Distinction of Freight and Passenger Vehicles; Tire Mileage and Costs.

Single versus Dual versus En Bloc Cylinder Construction—the Advantages and Disadvantages of Each; Two versus Three versus Five Bearings Crank Shaft Construction; Die Cast versus Sand Blast Bearings; T-Head versus L-Head versus Valve in Head Cylinder Construction; Cast Iron Valves; Piston Ring Ftting and Piston Ring Friction; Proper Portioning of Cooling Systems; Foreign Matter in Commercial Gasolene Obtainable Upon the Market at the Present Time; Motor Noises and their Remedy; Brake Materials; Influence of Case Form and Bearing Style upon Gear and Gear Box Noises; Six Cylinder versus Four Cylinder Motors of Equal Rating; Practical Experience with Fixed Ignition Timing; Single versus Multiple Ignition Points; the Gear Ratios of Three and Four Speed Transmissions; the Relation of Transmission and Rear Axle Noises; the Preparation of a Stock Car for Racing Work; Worm Drive; Motor Power Required to Drive a Motor Car on Various Road Surfaces at Various Speeds.

During the business sessions the society will consider means for increasing its scope, such as the establishment of a reference library of current technical literature and the publication of a digest of technical literature for members' use. There will be discussed also the reports of committees which have been appointed to investigate the subjects of tire efficiency and gear steels.

In its process of upbuilding and growth under the new management, the Society of Automobile Engineers has elected a score of new members. The list includes: Harold N. Anderson, Speedwell Motor Car Co.; Jerome J. Aull, Lunkenheimer Co.; Ferdinand H. Berger, Russel Motor Axle Co.; Erle K. Baker, Universal Rim Co.; Arthur M. Dean, Matheson Motor Car Co.; Walter A. Frederick, Continental Motor Mfg. Co.; Eugene Gruenewald, Moline Automobile Co.; Morris A. Hall, Automobile; Jonathan Haralson, Hutchison Laboratory; George F. Heising, Moon Motor Car Co.; C. C. Hinkley, Owen Motor Car Co.; Ralph R. Lewis, Carhartt Automobile Corp.; Emil A. Nelson, Hupp Motor Car Co.; Harold L. Pope, Matheson Motor Car Co.; C. T. Schaefer-Embree-McLean Carriage Co.; Charles L. Sheppy, Pierce-Arrow Motor Car Co.; Albert F. Shore, Shore Instrument and Mfg. Co.; John Squires, Thomas Motor Cab Co.; Ralph A. Vail, H. H. Franklin Mfg. Co.; George S. Case, Lamson & Sessions Co.

### Pernambuco a Promising Market.

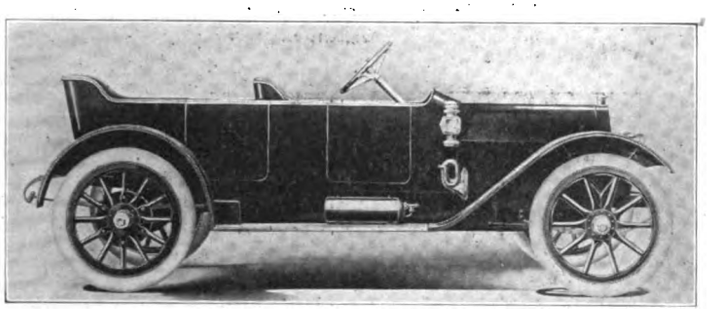
Despite the handicap of old and poorly paved streets, about 100 pleasure and commercial motor cars at present are in use in the city of Pernambuco, Brazil. This is considered especially remarkable in view of the fact that the first automobile was imported scarcely two years ago, and that on account of the poor quality of these first machines, and the second-grade stuff is used in manufacturing them, there are some drawbacks affecting their ready introduction. The popularity of the automobile is increasing, however, the demand being chiefly for medium-weight passenger and freight carrying machines. But one make of American car is represented locally, the bulk of the machines in use being of either French or English manufacture. Naturally, importers have to make allowances for the effects of the hot and humid climate on rubber, steel, leather and all polished surfaces.

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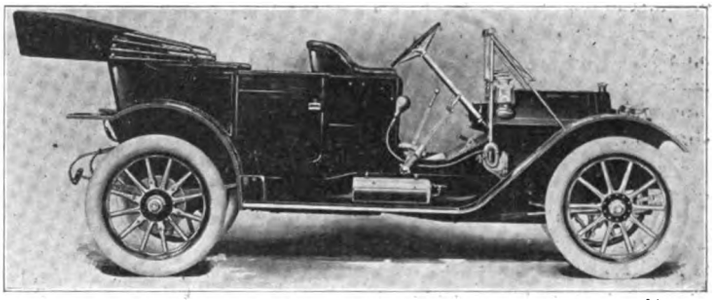
## CHANGES IN THE CHALMERS LINE

**Alterations Represent Refinements and Preserve Established Characteristics—An Unusual Torpedo Body.**

Adding its chief element of novelty, and no little distinction, the most striking change in the new Chalmers line is the torpedo body. In general essentials, however, the 1911 line will quite closely follow the specifications which have proved so successful in the past, the changes announced by the Chalmers Motor Co., Detroit, being for the most part of a minor nature. The two chassis models, one of 40 and the other of 30 horsepower, remain much in the same form as in the current styles. Altered body designs, a general refinement of details and one or two changes which differentiate between the old and new models are the most significant points.



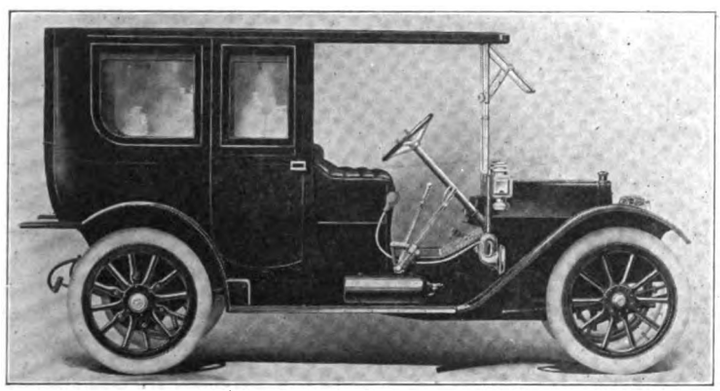
THE NEW CHALMERS "FORTY" TORPEDO



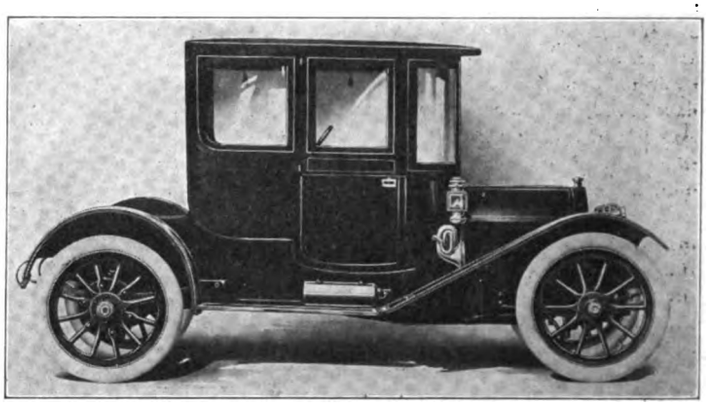
CHALMERS "30" STANDARD TOURING CAR

The new torpedo, which is fitted to the "Forty" chassis and replaces the small tonneau of last year, is unusual in a number of respects. In order to secure absolutely smooth sides, with no unnecessary protruberances to increase the windage or catch dust, all latches and handles have been placed inside the doors. Save for the gas tank, the running boards are entirely cleared of encumbrances, and the general straight line effect, which is the most striking element of torpedo design in its present tenses, has been carried out to the last degree. The torpedo sells for $3,000 with its equipment of convertible gas-electric lamps, shock absorbers, Prest-O-Lite tank and Firestone quick-detachable-demountable rims. The other "Forty" models are listed, as before, at $2,750. The "Forty" chassis also is sold with standard touring and roadster body equipments.

The "Thirty" line is made up in touring, roadster, small tonneau, limousine, landaulet and inside driven coupe forms. The latter vehicle is a new and particularly striking example of a class which is coming to be recognized as extremely useful to certain classes of motorists, notably physicians and others whose business requires frequent use of the car in all weathers, but who prefer to dispense with the services of a regular driver and handle the machine themselves. By the adoption of an extension front, room is made for a third seat facing to the rear, the car thus affording comfortable accommodations for three persons without being rendered in the least clumsy or "trappy" in appearance. The prices of the "30" touring and roadster types remain at $1,500, while the small tonneau now sells for $1,600 and the coupe and limousine and landaulet models for $2,400 and $3,000 respectively.



THE CHALMERS "30" LIMOUSINE



NEW CHALMERS INSIDE DRIVEN COUPE

By way of affording identification for the newer models, the color scheme has been altered, grey stripings and cream running gear and striping in alternative combination with the standard shade of blue being the options. As a further mark of distinction all radiators will bear an azure blue bar across the top in token of the performance of the Chalmers "Bluebirds," as the racing cars have been known. New designs for the lamps, new mud guard designs, concealed supports for the running boards and wider doors also are new points, while on all models the battery boxes have been stripped from the running boards and placed beneath the tonneau floors, where they are out of the way and well protected from injury. Foster shock absorbers now are included in the equipment of all the "Forty" models

In respect to technical changes no sweeping alterations are to be noted. The "30" motor, indeed, remains practically the same as heretofore. From the manufacturing standpoint, however, it is noteworthy that the motor now is produced entirely at the Chalmers factory, instead of being built outside to Chalmers's specification. The valve springs are now entirely encased, thus silencing the noise of the lifters; the wiring systems on both motors have been considerably simplified, thus increasing the neatness of the exterior, while, as a slight additional improvement in the same direction, both motors now are treated to a special enameling process, the "30" being finished in grey and the "Forty" in black. For the larger motor also the ignition system has been improved by the elimination of the unit spark coil and extra set of plugs and the adoption of the Bosch dual system. With the large magneto employed, it is possible to run the motor very slowly on magneto ignition alone.

Both motors retain the constant level splash system of engine lubrication. The appearance of the dash has been improved

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by the substitution of a bull's-eye sight feed for the former cylindrical pattern, however, while on the "Forty" motor a simpler form of plunger pump takes the place of the old gear pump. Incidentally, this change simplifies construction by doing away with both gears on the rear end of the crank shaft. A new style carburetter has been adopted for the smaller motor, which is so well adapted to its requirements that it permits uniform running at very low speeds and also tends to reduce gasolene consumption.

The multiple disc clutch with alternating bronze and steel elements is retained on the smaller model, while the larger one again is equipped with the simple cone type; the operation of the latter is rendered somewhat easier, however, by the adoption of a modified form of linkage. Except for a stiffening of the transmission brake on the "30" model, to eliminate all tendency to rattling, the braking equipment of that model remains as in previous models. The transmission brake on the larger chassis model has an enlarged cam, however, while the emergency hub brakes are applied by means of a wedge working between two shoes which are prevented from rattling by means of suitable springs and stops. No changes have been wrought in either transmission change gear.

The smaller car now is equipped with a pressed steel torque, instead of one of tubular form, while its rear axle hereafter is to be made in single piece pressed steel form. Two universal joints are employed in the propeller coupling, instead of one, as formerly. For the sake of securing roomier body accommodations the frames have been lengthened, although the wheel bases remain unchanged. The frame of the smaller model has been extended 2½ inches, and that of the larger 3 inches. This change, together with a general lowering of the seats, a change in the angle of the steering column and the adoption of the curved type of accelerator pedal, on the "30" model only, conduce to the general comfort of the operator and passengers.

### Immense Order for Commercial Cars.

What is claimed to be the largest order for commercial cars ever given to a British firm has been placed by a Brazilian syndicate, the Companha Anglo-Brazil de Auto Transportes, of Rio de Janeiro. The specifications call for 50 20-24 horsepower motor cabs, 50 3-ton lorries, five 15-passenger char-a-bancs and five heavy delivery wagons, or 110 vehicles in all.

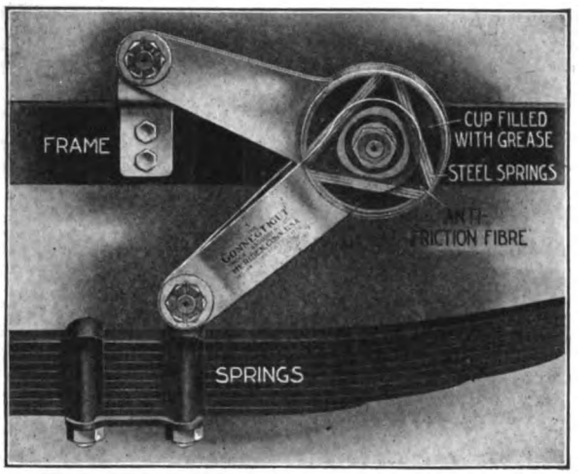
### Sugar to Prevent Clutch Slippage.

As a means of preventing an ordinary leather-faced cone clutch from slipping it is said that common sugar may be used to good advantage. By those who have tried it its effect is said to be much the same as that of rosin, though less liable to cause sudden gripping of the surfaces.

## SPRINGS INSTEAD OF FRICTION

**They Constitute the Feature of the Construction and Operation of Connecticut's New Shock Absorber.**

Not only has the Connecticut Telephone & Electric Co., of Meriden, Conn., brought out a new shock absorber, a field of manufacture in which it previously has not engaged, but it also has brought out a new company, in whose name the shock absorber business, for convenience sake, will be conducted. The latter is known as the Connecticut Shock Absorber Co., and its home is with its parent in Meriden.




CONNECTICUT SHOCK ABSORBER

As shown by the accompanying illustration, the Connecticut shock absorber, as it is styled, is of the cam and spring type, as distinguished from absorbers using friction plates or perforated hydraulic plungers. A three-face cam works in a triangle of three sets of springs, the latter being sufficiently stiff to give the necessary resistance for the different weights of cars. The springs are placed inside a retaining shell or cup, and a piece of special bone fiber is inserted between the face of the cam and the spring to eliminate wear of one on the other.

The case is packed with non-fluid oil, which surrounds the cam and spring, keeping them well lubricated at all times. The construction is grease tight, so that grease cannot leak out and water cannot leak in. All of the strain comes on the cam, and the bearings for the cam hubs, in the shell, receive practically no wear. This result is accomplished by the triangular arrangement of the springs, equalizing all strains which otherwise might tend to change the axis position of the cam in relation to the springs or the case. Its effect is to allow the absorbers to last indefinitely without attention.

In applying the device to a car, it is necessary to make the setting with regard to the normal position of the vehicle springs. This is accomplished through the provision of a serrated disc, whereby the neutral position may be obtained. After the original adjustment once is made, no further adjustments are necessary. During the normal movement of the car the shock absorber does not exert any braking effect, the shape of the cam being such that the springs are not brought into action until there is an excessive movement of the car body down or up, in which case the cam bears against the springs, exerting a braking effect and holding the body of the car where it belongs. As the cam movement is progressive, the greater the throw of the car body in either direction, the greater the braking effect. It is pointed out that this arrangement permits full flexibility of the vehicle springs in the middle range of action, while progressively checking violent depression or rebound. The ends which are supported on the brackets are fitted with renewable bronze bushings and anti-friction thrust washers with retaining cup washers, and are provided with ample lubrication to eliminate annoyance from squeaking or rattling due to wear.

It is possible to adjust the absorbers so that they will have braking effect of 250 pounds each, or 1,000 pounds to a set of four, without in any way retarding the free action of the springs during normal road conditions. This braking effect is accomplished purely by spring action and not by friction.

### Unusual Cause of Vexatious Noise.

A most distressing and mysterious source of squeaking sounds on the car may be the wood filler employed in reinforcing the torsion rod or the subframe upon which the power plant is mounted. From the very fact that this form of construction is not extensively used, it follows that its possibilities in this connection may be overlooked when search is being made for the cause of unnatural sounds. This difficulty arises when the wood has shrunk sufficiently to form a "working" fit with the surrounding metal, instead of being tightly held in place. The result is that when the member is heavily stressed and tends to bend or buckle, the wood rubs against the metal just sufficiently to cause a scraping sound which, it may be imagined by the listener, comes from almost any and every other part of the car. The remedy, of course, is to draw up all security bolts as firmly as possible and, in extreme cases, to wedge the wood filler or bend in the metal enclosure in order to secure a better fit. A temporary remedy, of course, would be to introduce oil between the rubbing surfaces.

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## U. S. M. HEADS HAVE A CONVENTION

**First Annual Gathering of Officials and Representatives of the Company—Three Days at Cedar Point.**

Three days of last week were devoted to the first annual convention of officers and representatives of the United States Motor Co. and of its affiliated companies, which was held at Cedar Point, Ohio.

The meeting afforded the first opportunity to bring together the combined sales forces of the Maxwell-Briscoe Motor Co. and the Columbia Motor Car Co., although there were representatives from the other United States Motor Co. plants and they sales manager, of the Brush Runabout Co.; Morris Grabowsky, general manager, and Charles E. Stone, commercial vehicle expert, of Alden-Sampson Mfg. Co.; J. I. Jameson, sales manager, Stoddard-Dayton Co. There were also the district managers, the branch house managers, and a number of dealers, as well as the advertising men of the United States Motor Co. and the Maxwell, Stoddard-Dayton, Brush and Columbia establishments.

**Finds Farmers Lack Cash at Present.**

Reasons why sales cannot be made in a given territory, as reported back to "the house" by traveling representatives, rarely are honored in their reception as being acute and valuable observations, since to the cynical eye of the sales manager they



OFFICERS AND REPRESENTATIVES OF UNITED STATES MOTOR CO. GATHERED AT CEDAR POINT

manifested great interest in the methods and deliberations of the Maxwell and Columbia forces.

The many phases of activity in large selling organizations were discussed, particularly the huge sales system and the supervisory organization by which the United States Motor Co. will cover the entire country. This plan consists of selling districts, each embracing a large territory and each having a district supervisor. The system will handle the aggregate output of the company, which will be 53,000 cars, ranging in price from $485 to $5,000.

The meetings—some of which were night sessions—were presided over by Horace DeLisser, vice-president of the United States Motor Co., who is in charge of the sales. Among those present were Benjamin Briscoe, president of the United States Motor Co.; J. D. Maxwell, president, and F. D. Dorman, vice-president, of the Maxwell-Briscoe Motor Co.; H. W. Nuckols, vice-president, and F. E. Dayton, sales manager, of the Columbia Motor Car Co.; Frank Briscoe, president, and F. Harris, may suggest "stalling" in lieu of actually getting business. Nevertheless there may be both significance and value in the report made to a Detroit manufacturer concerning the effort to sell motor cars to farmers at this time by a representative who has been making a six weeks' trip through Kansas.

"All the farmers are easily interested, but they are unable to follow their desires," the field man declares, "because of the lack of ready money. They are in the midst of their crops and the bankers absolutely refuse to advance any money until harvest time. As a result, there will be few sales until after harvest."

As a compensation for this condition, from the automobile manufacturer's or the agent's standpoint, is the fact that when the farmers do realize on their crops they will be in possession of large sums of ready money representing a season's work. With the money in hand in so large amounts, and vigilant dealers camping on their trail, automobile buying is a natural sequence.

## HOW HE MADE HIS BUSINESS PAY

**Purchaser of an Automobile Establishment Prospers by Practical Ideas—His Eye-Opening Experience.**

Practical, common sense business ideas applied to the operation of a modest automobile establishment with garage and repair shop often make the whole difference between success and failure, and the actual steps taken by a Middle West dealer who bought such an establishment and was badly "stuck" in his bargain but who brought the business around to a successful basis in a very short time, are rich in suggestion for those who are trying to solve the complex problems of management and policy, and are trying to make the profits grow. His experience in stopping losses through graft and waste, in solving the labor problem and in building up his trade to prosperous proportions, after having been handed a figurative "lemon," are as illuminating as they are entertaining.

"In one of the daily papers I saw an advertisement," says the dealer, in telling the story in the Spokesman, "offering a number of automobiles and supplies for sale at a low price, due to the illness of the owner. I was looking about for an opportunity to engage in the motor car business and answered the advertisement. In the reply I was invited to visit the establishment, which was located in a small but thriving manufacturing town in the Middle West.

"When I arrived I was shown over the place by the former owner. There were a number of cars in front, and there seemed to be quite a business. In addition to a number of machines on sale, there were quite a few in the repair shop at the side.

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Most of the machines on sale appeared to be of the cheap, rebuilt order. In fact, the establishment seemed to be stocked up with low grade automobiles.

"After closing with the proprietor for what seemed to be a conservative figure, I took charge. On the first day I found the boss of the repair department drunk, while there were several machines in the shop for repairs and the owners of two of them were telephoning repeatedly to inquire if their machines were ready. I went into the repair shop with an assistant and tried to fix the cars up myself, but failed to get them out at the time they were promised. I thus disappointed a good patron the very first day. Then another man, who had been dealing with the store for some time but whom I did not know, wanted to borrow $10 from me and I refused. By this I lost another good customer.

"I had a man help me in the store part, and this man took the place of the repair shop boss until the latter sobered up and returned to work. Meanwhile, in waiting on customers myself I found considerable defective stock in the supply department. In picking up one tire to show it to a customer, the thing burst in my hands. The former owner was in the habit of buying junk lots of stuff at auction sales or wherever he could pick up something in the automobile line at reduced prices. Consequently the stock in the store consisted of a lot of inferior stuff. Just what to do with this material was quite a problem.

"In testing the steering shaft of one of the cheap automobiles in stock in the show window, I bent the shaft with ease. I found patched tires in the supposedly new tire lot. A number of cans of gasolene had been sold to me from which part or all of the contents had been extracted. Several cases of lubricating oil, which I had checked up on the word of the former owner proved to be partly empty. I think one had been emptied and water put in.

"However, I did not like to make a fool of myself by complaining to the police. I ought to have been more careful in my investigation when checking up the stock. I had taken the word of the other man, and it seemed like an insult to him to insist upon opening the packages or counting the articles. I had closed the bargain and paid the money, and I decided to fight the thing to the finish. I fired the drunken boss. I got a good mechanic in his place at $3 per day, whereas the soak received $4 and was gone most of the time and did considerable knocking down in charges for all of the jobs he did, for I caught him red-handed several times. I had reason to believe that my assistant in the store was getting a rake-off on cash sales, and I shocked him terribly one day by putting in a cash register. I admire the cash register. I pat it occasionally even now, for my receipts took a sudden leap forward for the better from the very hour of its installation.

"Having decided to make the best of a bad bargain, I proceeded to advertise my establishment by means of circulars, personal letters, and the press. I inserted advertisements in the local papers concerning the fine accommodations I had for automobiling parties desiring any motor vehicle supplies of any kind. I dwelt upon the facilities of the repairing department of my establishment. I quoted prices on certain lines of repairs and supplies. I also sent out price lists, for there had been considerable complaint concerning overcharging by the automobile interests of the locality.

"I discovered in course of time that some of the excessive bills which the owners of the machines had paid in my place were due to the fact that there were one or more rake-offs. The chauffeur got his rake-off, and the assistant in the repair shop got his. Consequently the owner of the machine had to pay quite a good sum for a moderate repair job, although the establishment itself did not receive a very high figure. I cut out this overcharging by having a system of price tags, on which the number of the machine had to be written, the nature of the repairs, and the cost of parts and labor. These tags were made out in duplicate and properly filed in the cabinet made for them. One copy went to the owner of the car, so that he could see just what he was paying for.

"There was much grumbling in my shop when this thing went into effect. I also understood that I lost the business of some of the rich automobilists because the chauffeurs refused to come to my plant to get repairs done after that, as they preferred to go to another shop in the locality where the tab system did not prevail and the chance for a rebate was possible. However, I considered that I could get along without the business of the men who had in their employ dishonest chauffeurs. I had to discharge one of my repair men, too, because he almost told me to my face that unless he could get a rake-off on jobs he would have to have more pay. He referred to the rake-offs, which I am sure he had been getting, as tips. But I knew better.

Another thing that served in time to make my establishment one of repute with the responsible chauffeurs, is the fact that I cleared out a lot of cheap and trashy tires and automobile parts to make room for only the best in the market. The cheap machines and the second-hand truck in stock I sold at a loss to any one who would come to buy. I had an auction sale of broken-down cars and rusted and weak parts of machines which were in stock. I got rid of a lot of inferior lubricating oil by selling it to an axle grease man. There were cans and packages of stuff galore and this was disposed of in a junk-shop. I then began to stock up with new stuff. I had lost some thousands of dollars to date, but I was prepared to make a new beginning, with a new system and new stocks of machines and parts.

"The nature of my business and the location prohibited the accepting of the agency of any one automobile, so I dealt with the builders of a number of different machines. I had several cars of various types and prices installed as models in the new show windows which I had made with full plate frontage. The windows were well lighted at night, and served to draw the patronage of the night automobiling parties. I derived considerable income from the night tourists. I had to establish a regular night force as time passed. I had a mechanic come to work at seven o'clock each evening, and he remained on duty until one o'clock the next morning. This was his day's work, and I paid him $3.50 for the time.

"He always made considerably more than that for me, and often times turned in $20 as a result of the repairs he had made. Besides that he sold articles from the store, and a profit was derived from that. Fortunately he proved to be a good worker and an honest man. In time I gave this man a commission on the night sales of certain articles, and he added about a dollar a day to his pay. Later on some agents of articles required by night automobilists arranged with this man to handle on commission the sale of articles. One-half of the commission was turned over to the store, and we made a good deal out of this enterprise.

"I also fitted out a touring car for country inspections and runs, and got considerable recreation by riding out with the car on emergency calls. I had one of our speediest and most powerful cars fitted out as a repair and emergency car. I had a bench fitted up in the rear seat, with vise attached, and drawers arranged for holding a variety of tools most needed in road repairs. We carried towing apparatus to haul a disabled car to the store. We had extra tires and numerous duplicate parts of the engines and steering gear of different makes of machines most used in that location. I put up signboards along the principal roads leading to town, advising automobilists of the number of my telephone call, street and location; also telling the stranded party what I could do on an emergency call. I had the emergency machine always ready.

"A telephone message would be received, and in a few moments the road car would be speeding in the direction of the disabled automobile. Often the repairs were effected right there. Then again the machine had to be hauled to the shop. I got much business this way. In fact, the income of the sales department and repair shop got to be liberal and encouraging. and I forgot to have charges preferred against the former owner, who had next to swindled me.

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## TO OBTAIN ORDERS FROM MEXICO

**Consul-General Outlines the Most Effective Methods—The Cars in Demand and the Opportunities Offered.**

After outlining the present situation in Monterey, Mexico, United States Consul-General Philip C. Hanna, of the district, gives some valuable suggestions as to methods of increasing the strength of the American automobile industry in that promising section. Although motor cars hardly were known in that section three years ago, 32 cars are now registered, 90 per cent. of them being American made. Two well known manufacturers have local representation, there is one well-managed garage, and a company has been formed to exploit a motor cab service. The latter is said to have six machines in transit, and plans to order more in the near future.

The present demand seems to be for touring cars which sell on the ground for $1,500 to $2,000, the price including factory cost, freight, commission and Mexican duties; a few more expensive cars, however, are in use. The general upkeep cost, it is thought, averages about the same as that in "medium-rough" country in the United States. Gasolene sells at 32 cents per gallon and lubricating oil at 55 cents. City license costs $1, and monthly taxes are from $2 to $5, according to size of machine. Special permits and a $250 bond are required to enter the Porfirio Diaz Park. Special permits are also required for racing. Competent Mexican chauffeurs are to he had for $20 to $37.50 (American gold) per month.

Turning to the commercial aspect of the problem, Consul-General Hanna remarks that while the American product is well in the lead at present the field is large and wealthy and the chances for European cars are tempting, providing a good selling system is adopted. The American manufacturer can, however, combat such competition by considering a few points, some of which may seem out of line to the American who has not had actual business experience in a foreign country and has not been thrown into social and business relations with the people themselves. He adds:

"The idea of having a general agency at Mexico City with sub-agents in northern Mexico is considered bad. The Monterey agent should deal direct with the manufacturer. The manufacturer must take into consideration that agents in Mexico, as in any other foreign country, have difficulties and peculiar conditions to contend with, which are absolutely not known in the United States. The amount of money that can be invested in automobiles (cash down) by a prospective agent is not the most important point to consider. The agent should, above everything else, have a good name; he should receive the very best commissions possible to concede, and the manufacturer should give him the same help in the way of general and local advertising that is given to their agents in the United States.

"Advertising in publications in the United States does not cover the ground, hence, attention must be turned to Mexican publications and other mediums operating in the territory, or part of Mexico, desired to be covered. Advertising should not be placed by the manufacturer himself, through advertising agencies in the United States, or through any other source without first consulting the agent in the territory to be covered, as conditions are entirely different from those in the United States. If the agent himself does not understand the science of advertising and the worth of the different mediums, he can easily procure reliable advice from competent persons on the ground. The manufacturer who contracts with his agent to the effect that the agent is to stand all expense of the local advertising is likely to be the loser in the long run.

"Generally speaking, the Monterey streets are very good. The city contemplates repaving all the principal streets. The wide and well-paved drive, Calzada Union, is about two miles long and wide enough for twelve carriages to stand abreast. All in all, Monterey and territory for hundreds of square miles around it constitute a most interesting field for the manufacturer and the automobilist. While the roads outside the city are not the best, they are passable, and Monterey machines are running out into the country in every direction from 50 to 100 miles, and many times much farther. The wealthy haciendados (planters) are beginning to see the advantage of the automobile as a means of transportation between the city and their lands, even at long distances.

"The strong, durable machine, a good hill climber, and one that will stand muddy roads, as well as being protected from the dust, is the one that will eventually win in this section. The agents should carry a full line of parts, or at least those parts which experience has shown most likely to be needed.

"The question of credits is no more difficult here than at home. Only well-to-do people will purchase automobiles, and such people are good credits. The national and individual likes and dislikes should be carefully studied and catered to. A prospective purchaser might have his machine decorated in some particular way that suits his taste, or he might want his car to have a name. All Mexican farms and plantations as well as city and crossroad stores have a name. Why not the automobile? This is only a suggestion along the line of national traits."

## CONCERNING MOTOR STAGE LINES

**Its Elasticity and Small Requirements as Compared with Trolley Service—How One Prospector Achieved Success.**

Much of the same sort of adaptability that characterizes the quick-lunch business as carried on in the lesser towns and villages applies in the use of motor vehicles for passenger and luggage transportation. Unlike the settled food merchant, the lunch car proprietor has a true prospector's equipment; if business fails him in one location, he can try a second, a third, as many as may be necessary until he settles upon one where he can catch enough trade to pay for his canned eggs and give him a little profit on every sandwich. Then he usually boards in the trucks beneath his establishment, installs electric lights and signs a contract with the pie baker.

Settled ideas in regard to the suburban express and passenger business lie somewhat along the lines which have been run out by the street car interests. It is postulated that it will not pay to instal a line unless there is good prospect of a fair run of business at the start and of increasing patronage in future. Local trolley exploitation even depends for financial backing on town governments which it is supposed will be benefited by their advent. Once the tracks are laid and the line is in operation, it is a comparatively easy thing to hasten real estate developments and encourage industrial projects to take root and bear fruit.

But some of these ideas are destined to abandonment as time goes on. With the motor vehicle there are fewer fixed requirements. Relatively speaking, there is only a very small burden to be carried. The minimum equipment necessary to instal and operate a service in any locality is one vehicle of the type chosen as suitable for the character of the work. No power plant is necessary, no right of way, no road bed, no useless equipment, no heavy operating force; just one car and one driver constitute the unit of operating force; just one car and one driver constitute the unit of operating equipment. And the system is capable of endless multiplication.

When a number of vehicles are running it is possible to effect operating economies by equipping a garage, fitting up a repair shop, hiring a maintenance crew, investing in surplus rolling stock to meet emergencies and otherwise placing the system on an independent basis. But it is a signal mark in favor of the automobile as a means for pioneering transportation ventures that such equipment is not absolutely necessary to its operation.

Here is the suggestive experience of one motor stage line "prospector" in upper

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New York state: With his single sightseeing car, and an ambition to become a transportation magnate, he started a route in the vicinity of one of the smaller cities. Business did not flock to the standard of the motor 'bus as it had been fondly expected it would. Another route was tried but with no better success. Then, acting on the suggestion of a garage proprietor, the still ambitious transportation system in embryo was diverted into a third channel. Here, on a route something over a dozen miles long, with no railroad competition and trolley competition over only a portion of the distance, another start was made.

The new field was not entirely without competition, however. A stage line was in existence and to some extent threatened a hard battle for existence. But on the day after the new 'bus made its first trip, the stage driver advertised a horse for sale, and at the end of the first five days he was forced to the mournful acknowledgement that he had carried but two passengers. Meantime, with two trips a day, the automobile had been carrying loads both ways. And by adding a third trip on week days and running continuously Sundays and holidays, the automobile man has begun to see his way clear to realizing some of his early dreams.

To change the route of a railroad or even a trolley line in order to get a better run of business, generally speaking, would be a physical impossibility; such a project could be entertained only where the gain would be sufficient to tide over the enormous cost of the shift. The motor truckman or sightseeing adventurer is bound by no real estate and investment ties, and generally, if his business insight is keen, he can get a good start before hostile interests are aroused to interference with his undertaking. He can inaugurate an experimental service at any place where the opportunity appears to be hopeful. Once started, he can, without serious cash outlay, test the possibilities of extending the route or increasing the frequency of the service until he is certain that he has thoroughly explored his field and is working it to best advantage.

Early in the existence of the motor 'bus it was pointed out that it possessed a great advantage over the ordinary street railway line in that it could follow the demands of traffic on different days. On Sundays and holidays, for example, the passenger movement naturally follows different channels from those covered on week days. The ease with which routes and headways may be altered to suit the demand makes it possible for the motor car line operator to take full advantage of these shifting tides.

An instance from the administration of the Fifth Avenue Coach Co., which operates the only line of motor 'busses in use in New York City at present, sheds a little different light on the same idea. Recently a portion of Riverside Drive, over which one branch of the service extends, was blocked for repairs. That necessitated the diversion of the 'busses from the drive to Broadway for a portion of the route. But to cross over from the Drive meant the invasion of a residence section peopled by particular landowners, domiciled on narrow streets. Such people were liable to object to the groaning and clattering stages just as they would object to a herd of cattle or a circus parade. Hence the route was changed every day or two; one cross-town street would be used until sufficient time had elapsed for the caretakers to inform the absent residents at their summer homes that the 'busses had encroached upon their quiet thoroughfares, and then, before any complaints could be made or any formal protests entered, the adjoining street would be invaded.

So the "jog" in the route was moved up one block by successive stages until the drive again was open to traffic. No serious opposition was encountered, and as the bulk of the summer patronage of the line is terminal business and composed for the most part of country cousins visiting the big town, the income did not suffer visibly.

The same principle applied in a broader way renders it profitable to inaugurate motor stage and express service in localities where the season feature obtains. At summer and winter resorts, where the lack of continuity of the service would forestall the possibility of setting up a railway line, frequently there is good opportunity for the motor vehicle to be put to work. At the end of the season, the outfit can migrate, like the hotel proprietor and his crew, to another resort, or, in rare and favored localities, it is possible that it may be diverted to other uses.

Thus, there are certain towns where a staple industry exists independent of the resort enterprise, manufacturing, farming, lumbering, and where there is real need for cheap and effective transportation of freight. By making favorable terms, the motor vehicle operator might succeed in swinging enough freight business during the off-season months to provide a fair amount of work for his rolling stock, using the same chassis for passenger service in season and freight service out of season. Such an opportunity would be a rare and golden one, to be sure, but the seeing and grasping of such an opportunity, the ability to devise ways of applying the motor vehicle to a variety of applications, is what is destined to enhance the fortune of the motor truck operator and to increase the utility of the commercial automobile.

Still another phase of the motor wagon system as contrasted with the railroad, with which ultimately it may be in closer competition than with the horse, reveals a slightly different though logical extension of its possibilities. Commercial automobile service has been referred to as composed of a series of transportation units in multiple; the unit is one wagon with its crew and it is capable of indefinite extension as occasion may warrant. But where several systems or lines are operated in conjunction its flexibility carries another advantage, since the reserve equipment of one line may be applied to another. Garage equipment and repair facilities may be centralized and economies mutiplied in exactly the same way as though the entire system were concentrated in a single compact field, instead of being spread out over several adjoining towns or villages, or it may be made to encompass such varied purposes as stage lines, sight-seeing routes, express service and contract delivery work.

But, after all, one of the most hopeful and inspiring visions which the present state of the motor wagon presents is that of the independent prospector with his single rig, who, like the night-lunch man, travels about until he finds a good stand. He is the unit, from which not a single system but multiple systems will spring. He is destined to become a strong and potent element in the transportation of the future.

### Big Mileage for London's Motor Mail.

While the postoffice authorities in New York and other large American cities are not yet quite decided as to the value of the automobile in the postal service, as indicated by the slow installation of motor-propelled trucks and wagons in place of the slow and ineffective horse-drawn wagon, statistics from London show that the British postoffice has saved over $300.-000 last year through the installation of 13 motor mail service routes in the largest city of the world. Altogether the British postoffice operates 60 services, among them the 13 foreign parcel mails, which include such long runs as from London to Dover, 84 miles. The automobiles attached to the London office roll up a monthly total of 40,000 miles traveled under load.

### Accumulators for New Traction Line.

Recently introduced in New York City with success, the use of storage batteries for operating traction cars instead of the conventional overhead system has gained another convert in the newly organized Cincinnati & Pittsburg Electric Railway Company, which just has been granted a charter, and will construct a line connecting the two cities. Work will commence shortly and the system is expected to be in operation within three years.

### New Colorado Stage Line Started.

Fort Collins and Elkhorn, Col., 45 miles apart, now are connected by automobile stage, the initial trip of the new service being made last week. The line will be an auxiliary to the regular stage between the two towns, and one round trip will be made daily.

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## THE ACTRESS AT THE SEASHORE

**Being the Story of How Miss Priest Avoided Crowded Hotels—Motor Car the Chief "Property."**

While photographs of actors, actorines, baseball players, pugilists and political candidates seated in automobiles long since ran their course and now are tabooed by most well regulated and self-respecting publications, and the press agent seeking publicity for automobiles must needs give new twists to his ingenuity, the story and the picture showing how an actress "beat her hotel bill," so to speak, by converting an automobile into a seaside bungalow, is sufficiently off the hackneyed path to prove of prime interest.



MISS PRIEST AND HER "BUNGALOW" IN SEASIDE GARB

The actress in the case is Miss Beatrice Priest, of the Lew Fields Company, and the car a Studebaker. The accompanying picture shows how the young woman acted the part at the seaside and the story it runs this way:

"Finding all the hotels along the shore crowded, she determined to use her car as a camping outfit. She took it to the beach at Rockaway and made a seashore bungalow out of it.

"The car was fitted with an adjustable removable tent top, which was raised at night to permit the placing of cots from the top of the back seat to the top of the front seat, thus affording comfortable sleeping quarters. The interior of the car was equipped with a complete oil-cloth, covering, for use during the bathing hours, making the occupants entirely independent of bath-houses.

"All the comforts of home were enjoyed; and by simply swinging the car around, it was kept open to every breeze, no matter from which direction it blew."

### Actor Dodges a Huge Rental Bill.

With all their fondness for motor cars, "actor folk" appear far from fond of the expenses incident to motoring, judging from the numerous big bills for automobile hire that appear in the liability columns of those who find the voluntary bankruptcy process convenient for throwing off the burden of debt. Although he has not resorted to the bankruptcy court, Raymond Hitchcock, the actor, has so far found means to avoid paying a little item of $4,337, for which the Johnson Service Co., of New York, renters of motor cars, obtained judgment in April, 1908. The sheriff has returned an attachment unsatisfied. Like others with actors' names on their books, the company is considering the likelihood of having to charge the amount off to profit and loss.

### Ohio to Supply Fine Road Maps.

As a result of a quite unusual act of philanthropy on the part of the Ohio legislature at its last session, motorists soon will have an opportunity to procure a complete set of road maps of the Buckeye State at cost, instead of paying fancy prices for them, as usually is the case when legislators set the prices for things the motorist must or should have. In accordance with the law enacted by the Ohio solons the maps are now being printed and will be ready for distribution early next month. They will contain extensive and valuable road data of all counties, the character of road being indicated by colors, and will sell for $1.50. They will be supplied by the Secretary of State at Columbus.

## KOENIG, HE IS A VERY BUSY MAN

**Drops Cares of State to Witness his Political Camp Followers Examine Chauffeurs—Slow Progress Made.**

In respect to his method of exercising the rather liberal options afforded him under the terms of the new law, the activities of Secretary of State Koenig are exciting no little comment. Besides permitting his name to appear in connection with numerous interviews in which are expressed his determination to enforce the law to the last letter, the Secretary is finding time to devote directly to the business of conducting the necessary examinations. Indeed, this week he was able to drop his work at Albany and run down to New York in order to address a group of candidates in Examiner-in-chief Elliott's offices, which are the headquarters of the Touring Club of America, of which "club" Examiner Elliott is secretary.

Following the announcement that, in order to have their licenses by the first of August, when the law goes into effect, chauffeurs must file their applications at Albany by the 20th of this month, two examinations have been held. The greatest number of men handled on either of the two days was somewhere about a thousand, and with a total of some 30,000 drivers in the Greater New York territory to be examined, and only seven more examinations planned before the first of the month, it is plain to see that a good many drivers will have no legal right to drive when August comes around. It is claimed that an average of 2,000 men can be handled at each examination, though that number of candidates have not been passed upon as yet.

Just how the situation is to be handled under the circumstances, Secretary Koenig has not yet taken time to explain. He has anonunced, however, that the law will be rigorously enforced, and that at first the police will be instructed to warn drivers who are without licenses and instruct them in the steps necessary to obtain them. Following such warnings, it is said, stricter measures will be resorted to, including the severe penalties imposed by law.

Experienced drivers, who are anxious to protect their jobs, are complaining that the examinations given thus far have not been such as to bring out the applicant's real knowledge of the car and its operation. Such queries as: "If the gasolene motor could not pull the car up a hill on high gear, what would you do?" or "In the event that a vehicle was coming toward you on the highway, what precaution would you take?" they say could me answered after a brief study of text books, but without any real knowledge of the mechanism of the

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machine. The question: "Name all the parts on an automobile that should be lubricated and state whether oil or grease is used," likewise is held to be elementary.

To add to the unpleasantness, disgruntled operators are complaining loudly about some of the examiners, claiming that they themselves are not competent to run machines. Only about five per cent. of the applicants thus far examined have been refused licenses. These will be given a second opportunity to face the examiners.

### Catskill Hotelmen's Hopes Deferred.

The many schoolmarms and Macy and Siegel-Cooper salesladies and salesgentlemen who spend their hard-earned vacations in the Catskills, will be deprived of the midsummer treat which the hotel and boarding house keepers had arranged for them. That nice little automobile reliability run from New York and the climbing contest up the Kaaterskill Clove grade will not take place until after they have returned to their books and their dry goods, respectively, that is, if the contests take place at all. When the Morgan or Motor Contest Association first heard the call of the Catskill hotel keepers, he arranged the events to occur July 16th and 18th, which was Saturday and Monday last; but they did not occur. The M. C. A. was obliged to send regrets instead of cash customers in automobiles to the hotel men. He says he could be assured of only a beggarly 30 entrants, and as he has had at least 29 on several of his previous excursions he wouldn't lead such a small squad to the mountains, and they would have to use 1910 cars instead of 1911 models, too. Also there are quite a few men on New York's "automobile row" who are absent on their vacations, and as the "row" supplies the money-spenders for these M. C. A. affairs, it is believed that postponement until September 10th, 11th and 12th will result in the enlistment of fully 31 of them. Accordingly the "business" has been deferred until those dates. There will be more scenery in the Catskills at that time, anyway; also more empty rooms in the hotels.

### Following Goat Trails in Mexico.

Although the pilots of the "Under Three Flags" Flanders car encountered some strenuous going in Canada and in the United States, they have been up against the real thing since they crossed the Mexican border. They have been following what they describe as "goat trails" and have practically had to build roads in many places in order to make progress. They reached Saltillo on the 14th, being the first automobilists, they say, to make the journey from Monterey. In an air line the distance is but 42 miles, but they were obliged to cover 142 miles of circuitous and heartbreaking country in order to get through. They now are in the Central Mexican desert.

## WAR BREAKS OUT IN MONTICELLO

**Latest Reports from Front Give Brown the Advantage—He was Selling Gasolene for One Cent a Gallon.**

Motorists whose fuel tanks are running low are advised to get into high gear and head for Monticello, N. Y., with all possible speed. It doesn't matter much how far it is to Monticello so long as the trip can be made before the visible supply of "motor mileage" has run short. For indications point to Monticello's running dry within a short time unless some unforeseen occurrence arises to cause an increase in the price of the needful. At last accounts Monticello quotation on gasolene, real gasolene of the "S. O." brand (black letters painted on a big red tank), was one cent, United States currency, per gallon. Some said it might go lower, but others thought the supply might run short before another drop could occur.

It all happened because two local retailers, R. S. Turner and Floyd Brown, became entangled in a rate war. It is not known which one it was that first started the bung in the gasolene barrel, but at all events day by day they have been taking turns at clipping a penny a day off the price. Last Saturday morning a large sign on the front of his establishment announced to the motorists of Monticello, and such out of town visitors as there was room for in the line, that Turner's price for the day was seven cents a gallon and no rebate on empties.

Seeing the activity at Turner's place, Brown immediately got busy and announced a cut to five cents a gallon. Then, failing to make the desired impression, he laid hold of the town crier and sent him forth to inform the populace that the real price for the day was one cent a gallon. Needless to add, he got all the business there was left, while Turner sat down to figure how much it would cost him to give the stuff away. He found it would amount to just 13 cents the gallon.

### How a Novice Stopped the Trolleys.

Part of the nervousness which most novices display when attempting to drive a car for the first time is due to their natural uncertainty of the consequences should they manipulate certain portions of the control mechanism in an undue manner. Generally speaking their fears are groundless, which explains why so many people learn to drive in a short time. But in the case of Frank Griffith, banker, of Columbus, Ind., it was different. When, after riding peacefully in his car for many uneventful miles, he decided to try his hand at driving under the tutelage of his son Jeffery, he failed to grasp the idea that not only his hand but his foot, or rather his feet, were on trial as well.

In a moment of critical uncertainty as to just what to do next, his right toe somehow found the accelerator pedal. At the same instant the heavens fell in, or so it seemed to the frightened banker, and the whole machinery of the Indianapolis, Columbus & Southern Traction Co. came to a standstill. When he had been resuscitated and reduced to a state of relative mental calm, it was explained to Banker Griffith that when he depressed the accelerator pedal, the car had shot forward, jumped a curb, crushed into a pole carrying the high tension current for the traction company's service and jolted one of the feed wires to the earth, where it had grounded the entire system temporarily. Thereupon every trolley car on the line immediately stopped. It may be mentioned that the automobile, on the toe of whose accelerator Mr. Griffith all unwittingly trod, was not seriously damaged in the accident.

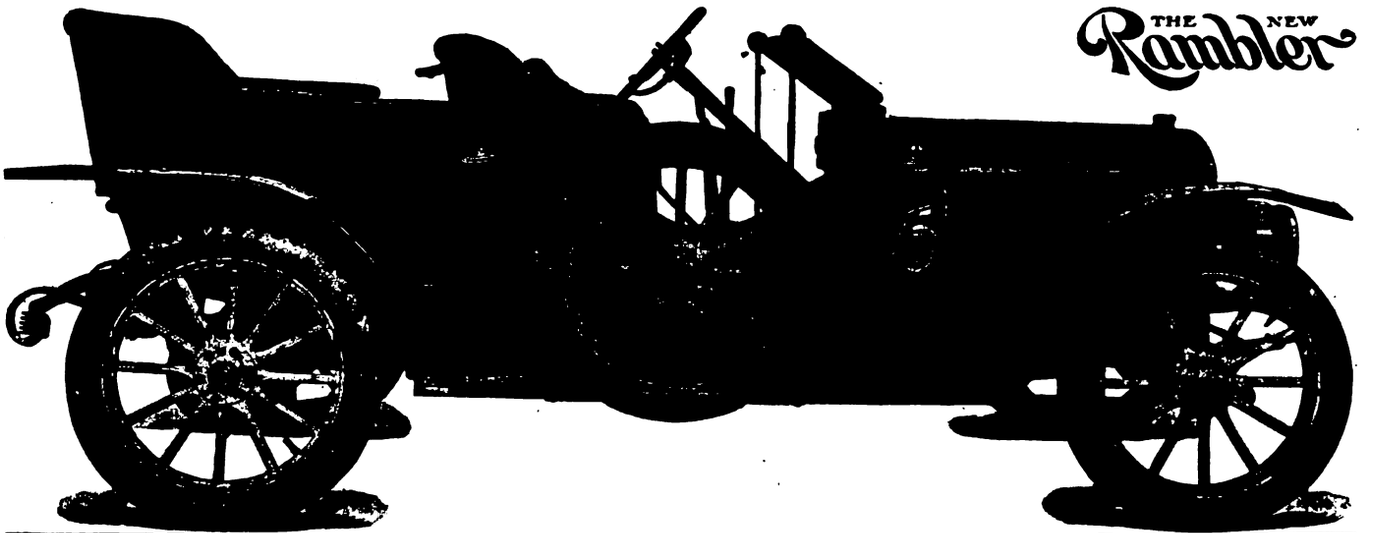
### Chicagoans Dispense Annual Charity.

Through the generosity of the Chicago Automobile Trade Association, aided by the local automobile and motor clubs, more than 1,500 inmates of the Windy City's orphan and old folks institutions enjoyed their annual outing through the city parks on Thursday afternoon, 14th inst. This year the tradesmen and motorists responded more generously than in former years with tenders of cars, over 150 machines being in line, and naturally the number of guests was greater. After picking up the unfortunates at the various establishments, the cars assembled on Michigan avenue, where the parade started at 2:30, a quartet of motorcycle policemen heading the procession. A large truck well loaded with peanuts, candy and other sweets was stationed near the starting line, and the goodies were handed out bountifully to the occupants of the cars as they passed. Embracing the boulevard system, the party visited Lincoln, Humboldt, Garfield, Douglas, Washington and Jackson parks and then returned to the starting point where it disbanded, the outing occupying about three hours.

### Same Old Story and Same Old Result.

Failing to heed the warnings conveyed in the numerous accidents resulting from attempts to fill the gasolene tanks of motor cars before first extinguishing the lamps, Calvin Denman, of Madison, Wis., was well scared and slightly burned last week while tempting Fate in this fashion. While filling a tank he dropped the can, spilling some of the fluid, and the vapor igniting from the lamps, Denman was enveloped in flames in an instant. Employes from a nearby garage ran to his aid and extinguished the flames. The car was damaged considerably.

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THE Fifty-four Toy Tonneau is a mid-season New Rambler model. It is an evolution from the Close Coupled model, designed for the same demand, but a little more roomy.

Its advantages are low seats, two inches longer than usual from front to back. Seat cushions tilted and rakish seat-back to correspond. Body smaller and lighter than the touring car but tonneau roomy enough for three people of average size. Three inches more leg room in front than touring car. Rakish steering column.

**With five lamps, Prest-o-Lite tank or generator, magneto and storage battery, horn and tools, $2,250. Top with side curtains, $100. Wind Shield $40. Spare Wheel $85.**

## Thomas B. Jeffery & Company

**Main Office and Factory: Kenosha, Wisconsin**

**Branches: Chicago, Milwaukee, Boston, Cleveland, San Francisco**

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## ONLY SMALL CARS CAN BE USED

**Many Reasons Why they are Better than Big Machines in Northwest India—Operating Cost is Low.**

Discerning a good opening in northwest India for American made motor cars of the light runabout class, American Consul Stuart K. Lupton, of Karachi, at the same time explains that the country is not suited for cars of the heavier type. The reason for this is not far to seek when the poor condition of the roads, the climate and the temperament of the native population are taken into consideration. He believes that light machines should find a good market on a basis of pure economy as compared with the garri, which they are competent to replace.

"There are not more than 200 miles of paved road in Sind, a district covering more than 53,000 square miles, about half of this being in Karachi, and dust storms are almost continuous, so that there is not much incentive toward the use of touring cars," says Consul Lupton. "The average native seems unable to adapt himself to changed conditions. He has been accustomed to bullock carts all his life and has taken his time in getting out of their way. When a vehicle approaches him at a much greater speed he can not realize the fact and is almost sure to go the wrong way, and the car must be stopped instantly, a procedure somewhat disastrous to the heavy car. Rubber deteriorates rapidly and roads are bad, so that the car should be light. Almost every house in Karachi is provided with stables, which were built for horse vehicles, and are consequently too short for the large car, and the roads are full of sharp turns, so that a long wheel base is a source of trouble.

"Practically the only use for cars is as a means of transportation for business men and their assistants. It is the custom for these men to be allowed a garri, or victoria, but it is bad policy to expect more than 10 miles a day from a horse in this climate. Finally, the city of Karachi being comparatively modern in its development, there are none of the old seignoral business houses that are to be found in other parts of India. The average man of business is an agent and not a partner of the house he represents; he is on salary and cannot afford the expensive car. The result is that the ideal car for Karachi, and this means almost every other city of northwest India as well, is a small, light, two-seated car, simple in its construction and easy to operate, with a wheel base of 90 inches or less, and a low price. A rumble seat should be added for the native caretaker, who invariably attends the car.

"A car of this type, with an average mileage twice that of a garri, can be operated with average care at a monthly cost of 50 rupees ($16.22). This will include the cost of renewing the inner tubes every year and the replacing of the shoes each second year. As a garri can not be rented for less than 65 rupees ($21.08) per month, it is quite favorable to the owner of the car. I am convinced that a motor that can be sold here for 2,500 rupees ($811) will do very well.

"At present there are 64 motor-driven vehicles in Karachi, including bicycles. Petrol can be obtained readily in the city for $1.76 per drum of five American gallons. In the fiscal year 1907-8 the imports of such vehicles at Karachi were valued at $43,255, all being supplied by the United Kingdom. In 1908-9 the United Kingdom furnished $43,846 and the United States $1,795. In spite of the imports being credited chiefly to the United Kingdom, most of the cars in use are French. Having been exported to Karachi from England, however, they are credited to the latter country."

### Possibilities of New Illuminating Gas.

Considerable interest has been aroused over the possibilities of Blau gas, as it is known after the name of its inventor, because of its property of liquifying under pressure to 1-400th of its volume at atmospheric pressure. Although it contains most of the same elements as ordinary illuminating gas, it is free from carbon monoxide and therefore is non-poisonous; its range of explosion is 1-12th that of acetylene, while it is cheaper to produce than that gas. It is applicable for illuminating and blow-pipe purposes, and is readily transported in steel bottles.

### To Remove Rusted Nuts and Screws.

To remove nuts and set screws which have rusted in place it is a good plan to wind a bit of cotton waste around the affected fastening member and to saturate it with kerosene oil. By that means the kerosene can be kept in contact with the rusted surfaces and will be prevented from draining off as it otherwise would do. After the oil has been allowed to soak into the rust for a period ranging from several hours to a day or two, it usually will be found that the parts can be separated without difficulty and without risk of damaging them.

### Military Commendation for Motors.

Terse, flattering and comprehensive is the statement made by a prominent European military official in connection with the abilities of the motor truck. He said: "An ordinary army supply wagon drawn by four horses carries a maximum of 2,500 pounds. A motor truck of the latest powerful types easily takes three times as much, goes three times as fast, with one-tenth the risk of becoming disabled."

## TRUCK CONTEST RULES COMPLETED

**Philadelphia-Atlantic City Run is Divided into Three Classes—Vehicles Must Carry Capacity Loads.**

Three open classes and three classes for private owners, that is, merchants, will constitute the commercial vehicle contest from Philadelphia to Atlantic City and return, 120 miles, August 12-13, which the Philadelphia North American is promoting and for which it is offering as prizes silver plate to the value of $1,000. The classes are as follows:

Class A—Vehicles of 1½ tons capacity and less.

Class B—Vehicles between 1½ and 3 tons capacity (3001 pounds to 5999 pounds).

Class C—Vehicles of 3 tons capacity and above.

The contest will be open only to freight-carrying vehicles. Each truck will be required to carry either merchandise or sand bags to the amount of its announced catalog capacity. In addition to the driver, each vehicle must carry an observer, and may also have a helper, if desired.

The observer of course will see that the various controls are reached on time, and also keep a record of the amount of gasoline and oil used on the journey and also of repairs and tire replacements made.

At the end of the run the total cash value of these supplies will be totaled, and the total expense will be divided by the number of pounds carried. The result will show the cost per ton of carrying merchandise the distance of 120 miles.

In the case of electric vehicles, the cost per pound will be determined by noting the number of times the car is charged, and by dividing the total cost of charging by the number of pounds carried.

A time limit will be fixed, arranged to fit the different classes, and penalties will be imposed for failing to reach the various controls on time.

### Eliminating Garage Dampness.

It is important that the garage should be free from moisture. Dampness, by causing metallic parts, both ornamental and mechanical, to corrode, greatly increases the labor necessary to keep the car in good condition, also tending to cause deterioration in such parts as are not subject to frequent attention. A moist atmosphere also tends to kill the gloss of newly varnished surfaces, and may cause upholstering fabrics to moulder. Difficulties of the sort occasionally arise in old buildings which have been reclaimed from other uses. Tight walls, well cemented basements and good ventilation are the usual methods of putting an end to the difficulty that otherwise is encountered.

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## RECENT PATENTS.

960,822. Combined Rear Light and Number Tag. Absalom F. Clark, Toledo, Ohio, assignor to Morton D. Teal, Toledo, Ohio. Filed July 19, 1909. Serial No. 508,450.

In combination, a number tag having slots and holes formed therein, a bracket having a body portion, legs formed integral with said body portion, and feet formed with the ends of said legs, screws passing through said feet and the holes in the tag for securing said bracket to said tag, and a lamp provided with a white and a red glass, the rays passing through the white glass adapted to shine upon the number tag.

960,832. Hood for Motor or Other Vehicles. James Sime Cree, Glasgow, Scotland. Filed Aug. 20, 1909. Serial No. 513,878.

A hood for motor or other vehicles, comprising front and rear series of adjacently pivoted hoops relatively so positioned upon the vehicle that the front hoop of the rear-series and the rear hoop of the front series abut at their upper parts when the hood is open and pivotal connection between the abutting parts, the supplemental hoops in each series being carried by said abutting hoops respectively.

960,897. Running Gear Constsuction. Emil Gruenfeldt, Cleveland, Ohio, assignor to The Baker Motor Vehicle Company, Cleveland, Ohio, a Corporation of Ohio. Filed Dec. 28, 1909. Serial No. 535,229.

1. In a device of the character described, the combination with a self-propelled vehicle comprising a frame, a front axle, a rear lixe axle, and a motor driven shaft for driving the live axle sections of said rear axle and journaled in the housing of said rear axle, of full elliptic springs, one at either side of the frame, interposed between the said live axle housing and the said frame, each of said springs having its lower half rigidly secured to the live axle housing, means for pivotally connecting the upper half of each spring to the frame, and links, each pivotally connected at its upper end to the front of the adjacent spring, and at its lower end having a pivotal connection with said frame.

961,077. Means for Facilitating the Starting of Internal Combustion Engines. Frederick Purdy, Kenosha, Wis., assignor to Thomas B. Jeffery, Kenosha, Wis.; Kate E. Jeffery, Charles T. Jeffery, and Harold W. Jeffery, executors of said Thomas B. Jeffery, deceased. Filed Dec. 23, 1908. Serial No. 468,888.

1. A fender for the purpose specified comprising a fender body, parallel arcuate hangers extending backward from the fender body, guides in which said hangers are received and adapted to slide in a curvilinear path, and means connected with said guides for fastening the hangers against sliding movement.

960,976. Fender. Albert Littman and William J. Lackie, Cleveland, Ohio, assignors of one-third to Niels T. Merck, Cleveland, Ohio. Filed Aug. 18, 1909. Serial No. 513,489.

1. In an internal combustion engine, a plurality of engine cylinders, pistons in said cylinders, means for normally exhausting pressure from said cylinders at predetermined points between the ends of the working strokes of said pistons, and means for maintaining the cylinders closed against atmosphere when the pistons reach said predetermined points upon stopping the engine so as to maintain pressure in the cylinders.

961,097. Gear Case and Housing for Automobiles. Charles W. Blackman, Cleveland, Ohio, assignor to Parish & Bingham Company, Cleveland, Ohio, a Corporation of West Virginia. Filed Jan. 29, 1908. Serial No. 413,235.

1. A gear case and housing formed of two members having an enlarged hollow gear case portion within each of the same and an opening through one of said hollow portions, and flanges on said members for connecting the same together and the contracted portion of said members having an enlarged end portion thereon.

961,104. Means for Automatically Inflating Pneumatic Tires. Roger Connell, Westport, New Zealand. Filed July 12, 1906. Serial No. 325,932.

In a tire inflater of the class described, in combination, a tubular union, a flexible piston rod passing slidably through the union, a cap fixed to the top of the piston rod and having perforations, a plunger to which the cap is screwed and having a valve seat, a spring operated valve fitting the valve seat, a hollow seat upon the plunger, nuts screwed upon the neck cupped leather washers and attached to the union, and a valve casing having a large internal diameter and through which the piston rod passes, and to which the union is attached, as set forth.

961,136. Spark Plug. Robert Jake, Rockyridge, Ohio. Filed June 9, 1909. Serial No. 501,039. Renewed April 21, 1910. Serial No. 556,848.

1. In a spark plug, a body provided with an opening therethrough, an integral yoke on said body provided with a threaded sparking terminal held in the threaded opening and provided with means to engage a tool, one of said terminals being provided with a cup shaped end.

961,152. Internal Combustion Engine. William W. Morse, Newark, N. J. Filed April 20, 1906. Serial No. 312,778.

1. In combination with a mixing chamber of an explosive engine, a source of supply for liquid fuel, piping from said source to the mixing chamber, means for heating said piping, and an air vent in said piping between the heating means and the supply, an air intake port to said mixing chamber independent of any combustible vapor intake port.

961,158. Signal for Motor Vehicles. Robert M. Pierson, Bronxville, N. Y., assignor to Charles F. Brown, trustee, Reading, Mass. Filed July 17, 1909. Serial No. 508,227.

1. In combination with a vehicle driven by an internal combustion motor, of a warning signal carried by said vehicle and operated by the suction of the motor.

961,284. Carburetter. Ernest N. Broderick, Detroit, Mich. Filed March 25, 1908. Serial No. 423,108.

1. In a carburetter, an annular float chamber provided with a lateral hollow lug, a valve seat in the lug, a closure therefor, an upright stem secured to the closure longitudinally reciprocable in the lug, a lever pivoted in the lug and adjustably secured at one end to the stem, a float in the chamber, gimbal ring connections, between the other end of the lever and the float, and adjusting means secured on the outside of the chamber adapted to vary the relation of the stem lever.

961,372. Motor Vehicle. Albert F. Rockwell, Bristol, Conn., assignor to The New

Kelly-Springfield Auto Tires
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THE MASTER INTERRUPTER
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MADE IN GERMANY
The Master Magneto!
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SOLE IMPORTERS
TIMES BUILDING NEW YORK

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Departure Manufacturing Company, Bristol, Conn., a Corporation of Connecticut. Filed March 12, 1910. Serial No. 548,915.

1. In a motor vehicle, the combination with a frame, and an engine supported thereby, of traction wheels having movement toward and away from said frame, a fluid motor in driving connection with said traction wheels, a pump flexibly connected to said frame, inflexible piping rigidly connecting said pump and said motor, and driving connection between said pump and said engine; substantially as described.

961,406. Reinforcing Truss for Motor Cars. Delamere B. Gardner, Chicago, Ill. Filed Dec. 6, 1909. Serial No. 531,652.

1. The combination in an automobile of a differential casing and a forwardly extending shaft bearing, with a separately formed truss member surrounding the differential casing and extending forwardly and secured to said shaft bearing.


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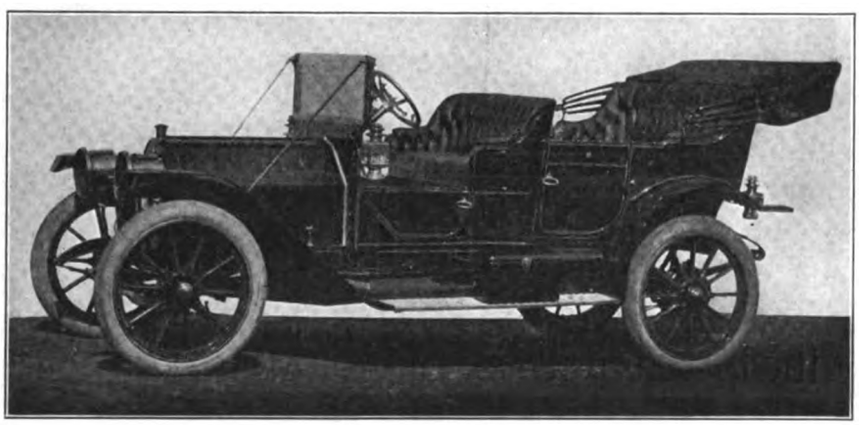
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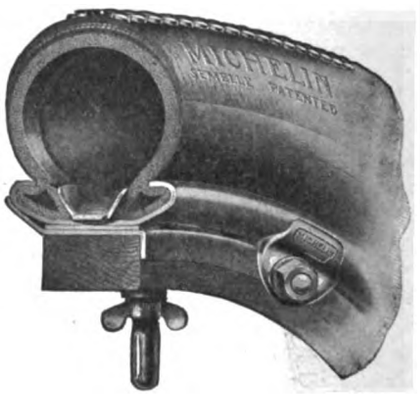
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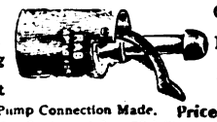
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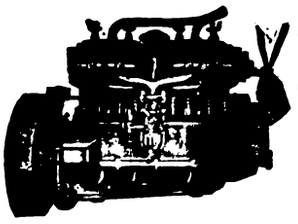
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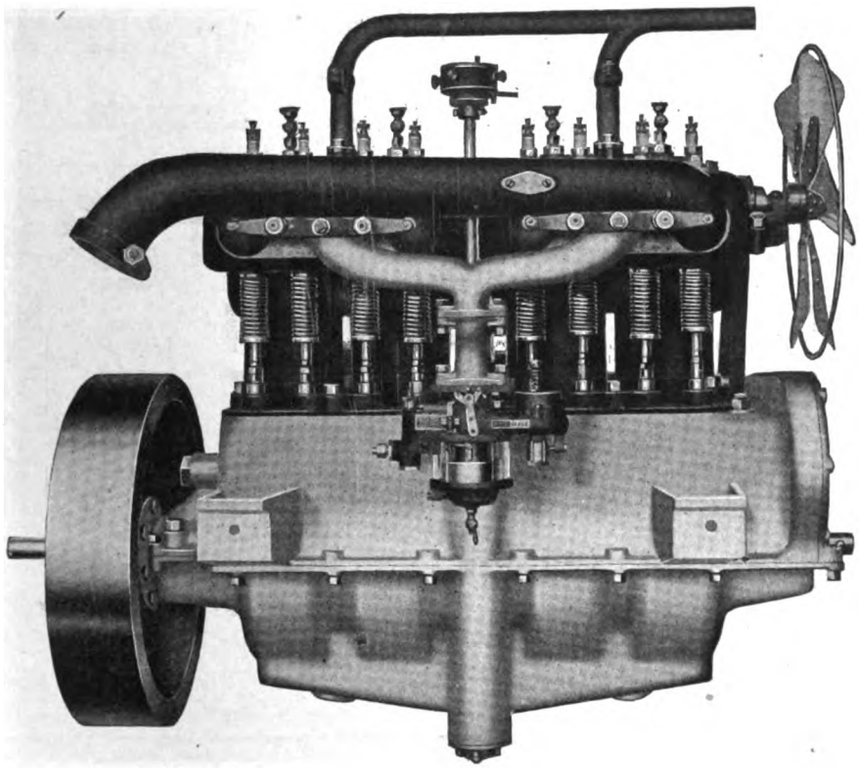
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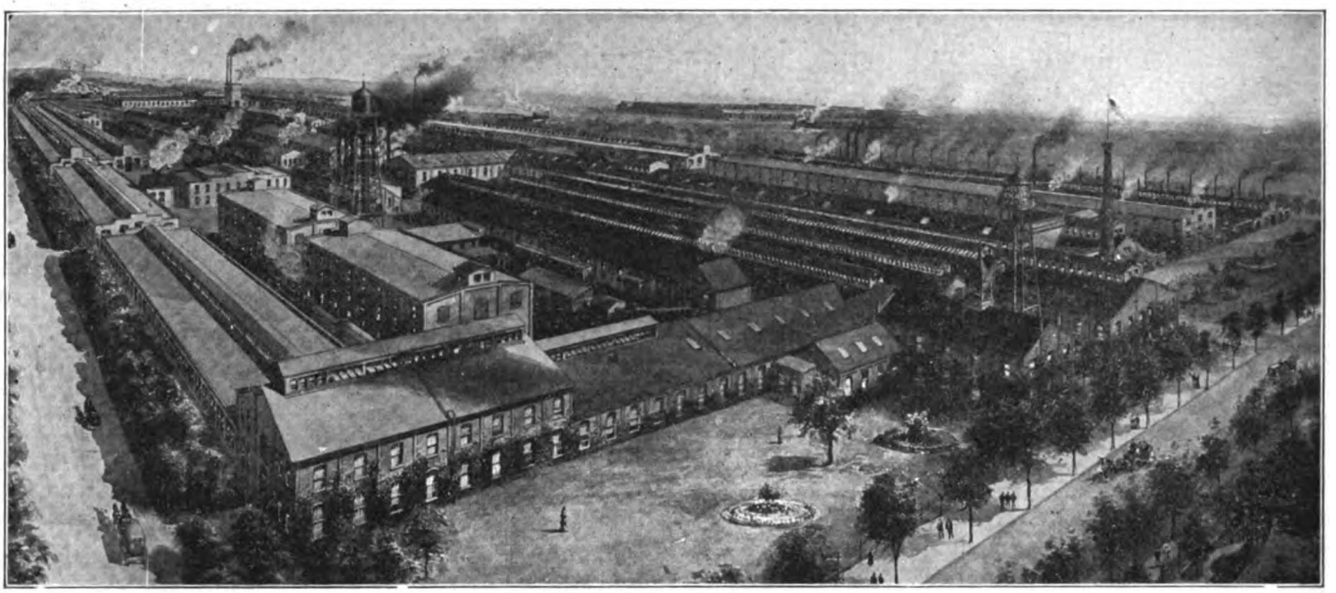
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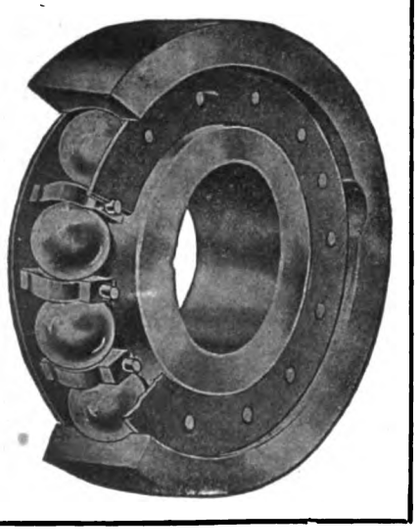
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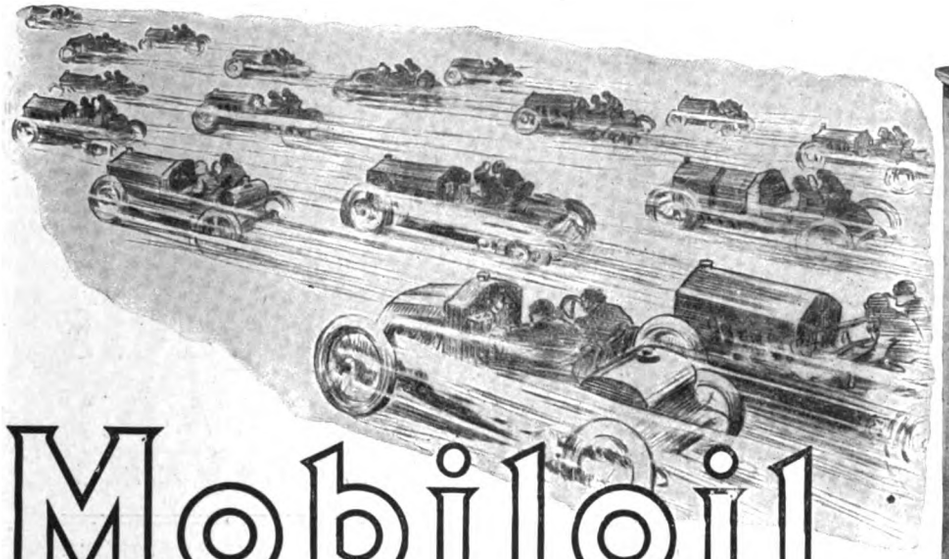
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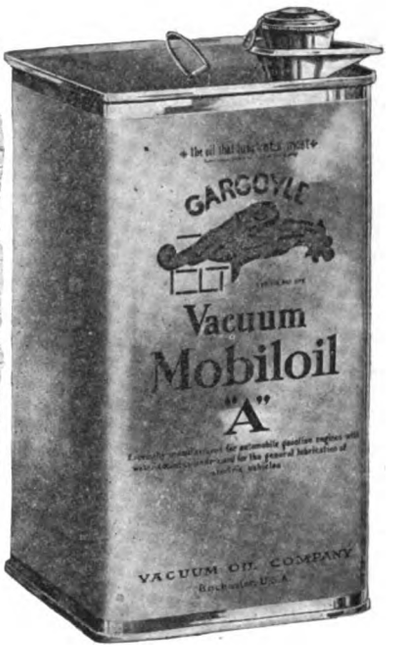
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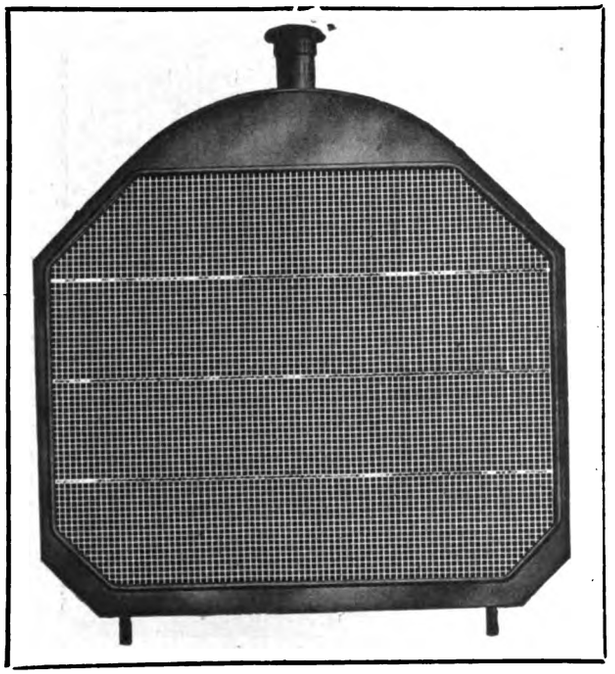

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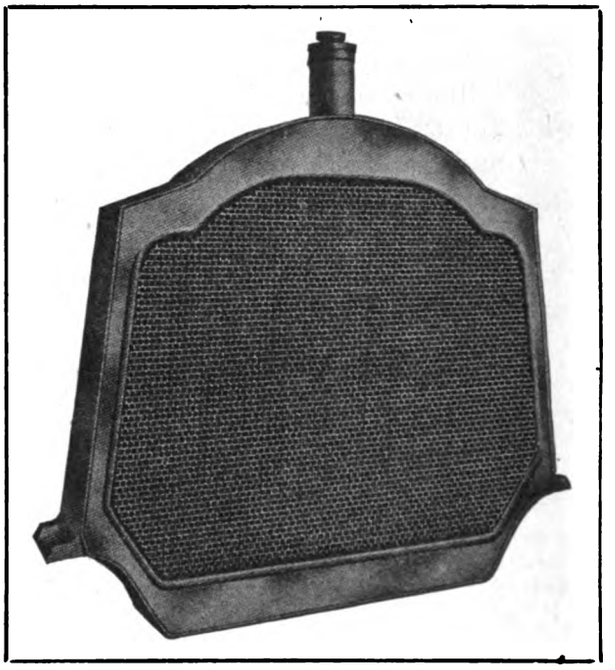
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# 1911 Models

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ADVANCE INFORMATION BULLETIN MAILED ON APPLICATION.

CHANGES in 1911 models over 1910 machines are in the nature of refinement of details. In the Model K car the wheelbase has been lengthened from 112 to 115 inches, giving greater leg room between dash and front seats. The tonneaus have been widened to readily accommodate three stout persons. In the Model O car the wheelbase has been increased from 109 to 110 inches. Spring designs have been bettered to afford easier riding qualities. Steering wheels have been bettered to afford easy manipulation of car over roughest roads. The finish on all models has also been refined.

DEALERS: Write for 1911 Proposition. Quick Action is Necessary as Territory is Being Rapidly Closed.

**Pullman Motor Car Co.** York Pa.
Licensed under Selden patent.


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## What High Manufacturing Ideals Have Accomplished

Time was, years ago, when it took considerable effort and talk to get a car manufacturer to pay a higher price for Solar Lamps than he was paying for ordinary ones.

It's surprising now how little talk it takes, and how many manufacturers convince themselves.

# Solar Lamps

That's our reward for maintaining steadily in every Solar Lamp the utmost in quality, beauty, durability and service.

Even if yours is one of the few high-grade cars not regularly equipped with Solars—the great majority **are** equipped—the manufacturer will furnish them if you insist. And unless you do insist you'll never know what real lamp satisfaction is.



**Badger Brass Mfg. Co.**
**Kenosha, Wis.** **New York City**

90

# Mosler Spit Fire

THE PLUG WITH THE DEEPEST CHAMBER

# Leads the World

READ **NOTICE!** READ

Our SPIT-FIRE Plugs are for sale by all legitimate dealers and jobbers.

If you cannot get a delivery—
THERE'S A REASON!

WRITE US DIRECT

WE CAN SHIP ON TWENTY-FOUR HOURS' NOTICE

Dealers and jobbers beware! We protect our trade mark

PACKED IN THIS BOX — FOR YOUR PROTECTION



DONT BUY IMITATIONS

A. R. MOSLER & Co. 163 W 29TH ST. NEW YORK.

# COLE 30-$1500.

A Car You'll Be Proud to Own

Made a New World's Record at Los Angeles—the same car made a clean sweep at Atlanta and is the only $1,500 car that ever finished a 24-hour endurance run. Came in ninth at Brighton Beach, competing against costlier, heavier cars.

PROVEN-SPEED, DURABILITY, SAFETY, DEPENDABILITY.

C. P. HENDERSON, Cole Motor Car Co., SALES DEPARTMENT, Indianapolis, Ind.

Also made in 4 and 5 Passenger Touring Cars.

The Classiest Car of Them All.



Write for Catalog

Torpedo Roadster

Some Territory open for Agencies

# FORGINGS

We make all kinds of forgings—make them just the way you want them—rough, rough-turned or machined to blue prints—make and deliver them quickly.

Heat treating furnaces under the direction of skilled and competent men.

Send us your blue prints for quotations.

**THE WRIGHT WRENCH & FORGING CO.**
**1417 Barth Street** **Canton, O.**

# The LENOX HOTEL

**BUFFALO, N. Y.**



**Highest Grade Fire-Proof**

The ideal hotel for tourists and visitors to Buffalo, Niagara Falls and points on the Great Lakes.

Patrons may take taxicabs or carriages from depots or wharves direct to the hotel, charging same to The Lenox.

**EUROPEAN PLAN**

$1.50 per day and up.

*Ample Garage facilities near by.*

**C. A. MINER, Manager**

# DEALERS

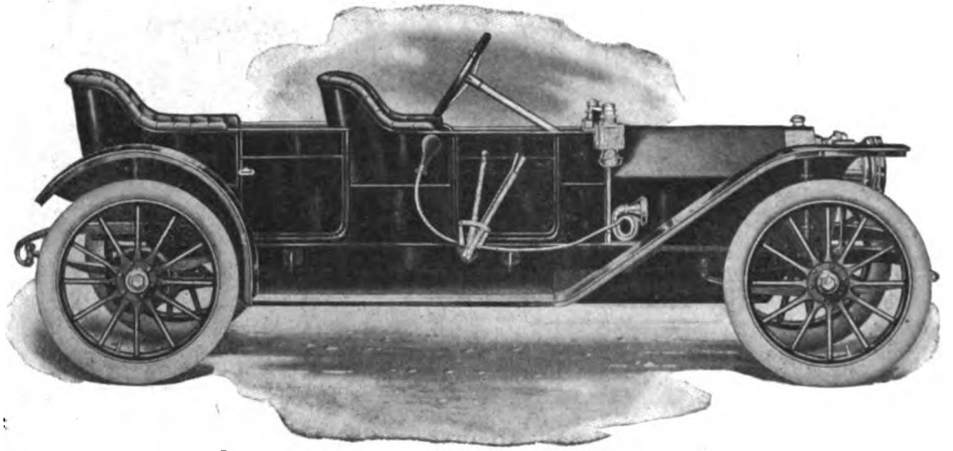
Now is the time for progressive dealers to secure some of the best territory and to take advantages of the big national advertising campaign that this company has been vigorously pushing in the highest grade publications. Owen demonstrating cars in charge of factory representatives are covering the country. We shall be glad to arrange for a demonstration of the Owen in YOUR territory. Write us at once.

**OWEN MOTOR CAR COMPANY**
**1620 E. Grand Boulevard** **Detroit, Mich.**

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# 1911 - DE TAMBLE - 1911

**$1400** **$1400**



Model "D" 4-34 De Tamble Torpedo. 4-Cylinder, Unit Power Plant, 34 H. P., 3 Speeds Forward and Reverse, H. T. Magneto, 115-inch Wheel Base, Five-Passenger.

**A STANDARD CAR AT LESS THAN STANDARD PRICES**

Mr. E. S. DeTamble has not only made a name for himself by reason of his success in the manufacture of automobiles in past years, but has proven to the buying public it is possible to make a HIGH GRADE CAR at prices heretofore unheard of. This statement is not made without foundation, for it is backed up by a demand for De Tamble cars that has made it necessary to more than double his output the coming season, and the addition of several new models.

The 1911 De Tamble line includes FIVE DISTINCT MODELS in Roadster, Touring and Torpedo types, listing from $650 to $1,400.

**AGENTS** 1910 contracts being renewed for 1911 daily, and open territory closing rapidly. Write or WIRE for literature and terms on complete line.

**OAR MAKERS SELLING CO.,** Sales Managers for The De Tamble Motors Co., **1256 Michigan Ave., Chicago, Ill.**

# AJAX TIRES

TIRES are a costly drain on the purses of motorists, and if you can get longer wear out of them for the same money it is folly to adhere to the old, trust-to-luck methods.

MOST MAKERS will guarantee for "materials and workmanship," but we are the only ones who issue with each tire a printed guarantee certificate, signed by our president, warranting you 5,000 miles or 200 days of service from each tire purchased.

QUALITY, and quality only, makes such a rigid guarantee possible.

**AJAX-GRIEB RUBBER CO.**
**General Offices: 1777 Broadway, New York**
**Factories: Trenton, N. J.**
*Branches in Principal Cities*

# Accurate Gears

CAN furnish all kinds of gears of any material and in any quantity, all with accurately cut or planed teeth.

LET US QUOTE YOU PRICES

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**SYRACUSE, N. Y.**

# STEERING GEARS
# CONTROL LEVERS
# RADIATORS

PROMPT DELIVERY

**CENTAUR MOTOR COMPANY**
**510 Majestic Building** **DETROIT**


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# Splitdorf Reliability

## Again Strikingly Shown

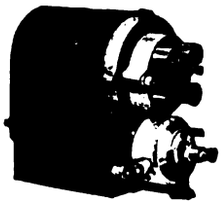
in the

## Under Three Flags

run of the Flanders car.

This sturdy little car equipped with a SPLITDORF Magneto has just finished a 4500 mile journey from Quebec to Mexico City, a run that tried to the utmost both car and equipment.

Again SPLITDORF quality has proved its claim for Endurance and Efficiency.



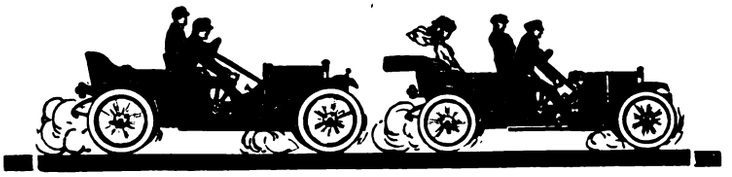
**C. F. SPLITDORF**

**Walton Ave. and 138th St.**

**Branch, 1679 Broadway**

**New York**





## When the Car Ahead Stops Short, What Can You Do?

That depends upon your brake linings.

If they are made of camel's hair or other organic materials, your car will collide with the one ahead, because these linings cannot stop a car in less than 12 to 25 feet. A collision means a damaged machine, lost temper, an argument, perhaps arrest.

If your brakes are lined with the non-organic lining, made from the long, tough fibres of the asbestos rock with brass wires interwoven—

## J-M Non-Burn Brake Lining

you can stop your car as quickly or gently as you wish—almost instantly, if necessary. Nothing can affect the gripping power of this lining in the least.

Frictional heat, oil, gasoline, or water have no effect on it, because it is a mineral lining and has already been subjected to the action of disintegrating forces in the earth. **It is practically indestructible.**

Use J-M Non-Burn Brake Lining and avoid accidents, damage suits, etc.

Look out for substitution—insist on seeing the name "J-M Non-Burn" stamped on the lining you buy.

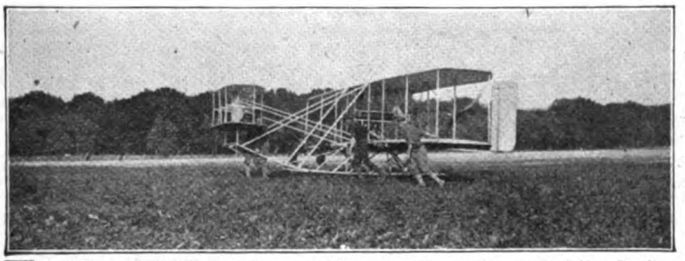
A sample and our new book, "Practical Pointers on the Care of Automobile Brakes," sent on request. **Write nearest branch now.**

**H. W. JOHNS-MANVILLE CO.**

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(*Photo, Paul Thompson*) Wright machine being moved across the field at Fort Myer

## Get this Booklet Before Buying a Speed-Indicator

It tells you a lot of interesting things about the uses of a speed-indicator to the motorist.

And it tells you a lot about the Warner Auto-Meter, and about the accuracy and reliability under all conditions which have won for the Warner Auto-Meter the proud title—"The Aristocrat of Speed-Indicators."

Unless you have absolute accuracy, you know you are simply guessing, and might as well have nothing.

The Warner Auto-Meter is the only speed-indicating device considered in important tests or races.

Write for the booklet, or call at our nearest branch.

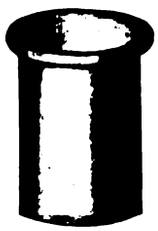
**WARNER INSTRUMENT COMPANY, 960 Wheeler Avenue, BELOIT, WIS.**

The Warner Auto-Meter

BRANCHES: Atlanta, 116 Edgewood Ave.; Boston, 925 Boylston St.; Buffalo, 720 Main St.; Chicago, 2420 Michigan Ave.; Cincinnati, 807 Main St.; Cleveland, 2062 Euclid Ave.; Denver, 1518 Broadway; Detroit, 870 Woodward Ave.; Indianapolis, 330-331 N. Illinois St.; Kansas City, 1613 Grand Ave.; Los Angeles, 748 S. Olive St.; New York, 1902 Broadway; Philadelphia, 302 N. Broad St.; Pittsburg, 5940 Kirkwood St.; San Francisco, 36-38 Van Ness Ave.; Seattle, 611 E. Pike St.; St. Louis, 3923 Olive St. (70)



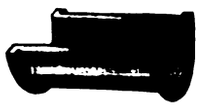
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We are the exclusive makers of Franklin die-cast bearings. They are durable, economical, accurate and uniform, and we can turn them out for you at lower cost than you now pay for machine-finished bearings.



Won't it pay you to investigate our process? One trial will demonstrate the value of these die-cast parts.

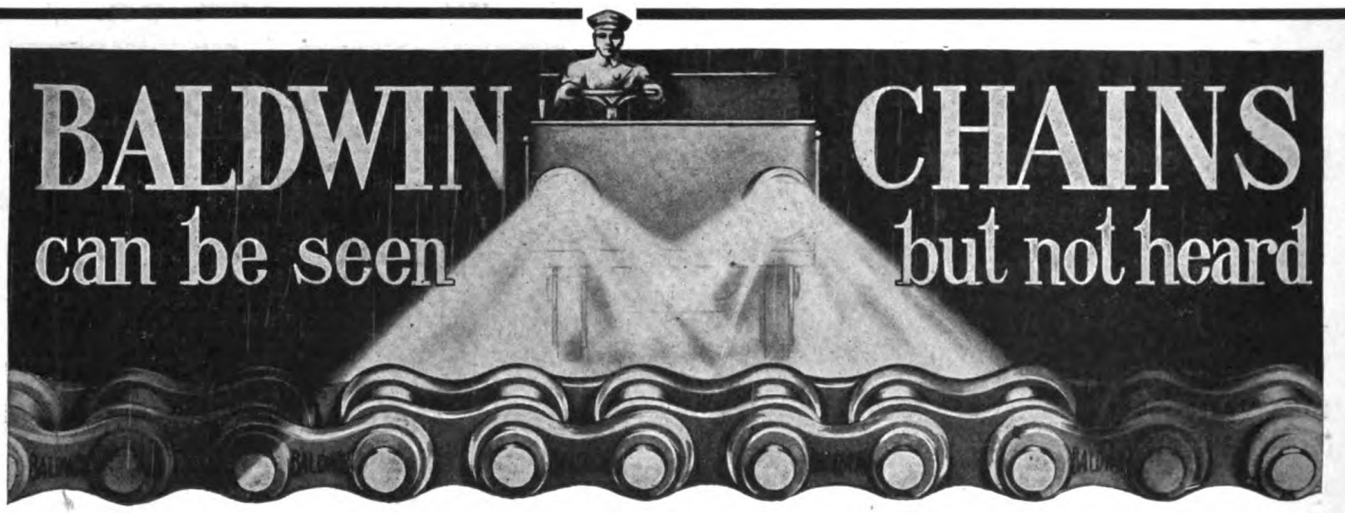


**Write for our new booklet D, which tells all about the Franklin process of die casting. It will be worth your while.**



FRANKLIN MANUFACTURING COMPANY
202 SOUTH GEDDES STREET SYRACUSE N Y


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They can be seen on a great variety of cars but not heard because on account of their proportion of weight to strength, and nicety of construction, they run comparatively noiseless. They are made detachable and riveted, each the same price; quality of stock carefully selected. Send for description.

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Increased facilities, new buildings, new machinery, enables us to make more motors.

**NOW IS YOUR TIME**

**Nothing better ever made than the Rutenber**

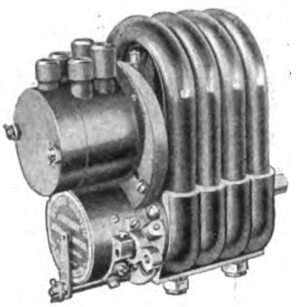
Write for list of manufacturers using the Rutenber. Write for list of agents who say it sells the car. Write for personal testimonials, praising its power, speed, endurance and economy.

**4 x 4; 41-2 x 5; 43-4 x 5**

Latest improvements. Each motor carefully tested and fully guaranteed.

Marion Indiana **WESTERN MOTOR COMPANY** Logansport Indiana

# Heinze High Tension Magneto



**Construction**—Mechanically unequalled.

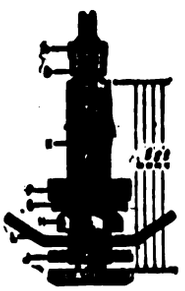
**Durability**—Greater than the life of the car.

**Efficiency**—Proven by the users.

*Catalogue H with full information is yours for the asking.*

**HEINZE ELECTRIC COMPANY**
**Lowell, Massachusetts**

Established 1844



# SCHRADER UNIVERSAL VALVE

**Trade Mark Registered April 30, 1895**

**SIMPLE AND ABSOLUTELY AIR TIGHT**

Schrader Motor Tire Valves, as shown in cut, are the regular equipment for G & J Motor Tires, Hartford Dunlop Detachable Tires, Fisk Detachable Motor Tires, and New Goodyear Detachable Motor Tires.

Our No. 777 Motor Tire Valve is the standard for 2½ inch and 3 inch tires and our No. 725 Motor Tire Valve is the standard for tires larger than 3 inches.

**Supplied to the Trade by All Tire Manufacturers**

Manufactured by **A. SCHRADER'S SON, Inc., 28-30-32 Rose St., New York**


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# HOMO

More Power

Less Gasoline

Steady Pull




More Speed

Less Heat

Less Vibration

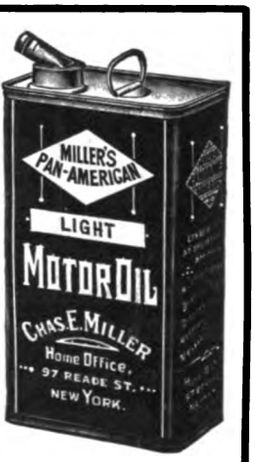
**MAKES A FOUR CYLINDER RUN LIKE A SIX CYLINDER ON THE GASOLINE CONSUMED BY A TWO CYLINDER**

**THE GREATEST SCIENTIFIC ADVANCE THE GASOLINE MOTOR WORLD HAS EVER KNOWN**
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# MILLER'S Pan-American Motor Cylinder Oils

are refined from **the finest grade Pennsylvania Crude** and are pure, distilled, highly-filtered mineral oils. **Have a high fire test, low cold test and** not affected by climatic changes. **They are made in three grades** suitable for all types of water and air cooled **Motor Cars, Motor Boats and Motorcycles.** In order to convince you of the efficiency of these oils we are willing to make you a **special price** for an initial order, much lower than usually quoted on other high grade oils.

**WE HAVE HANDLED THIS OIL DURING THE PAST EIGHT YEARS AND DO NOT HESITATE TO RECOMMEND IT TO BE THE EQUAL OF ANY FIRST CLASS OIL ON THE MARKET.**

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# Which Will You Have?

# A NEAR Signal

— OR —

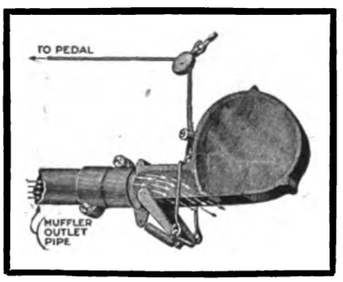
# A REAL Signal

Legislation and Popular Sentiment, everywhere, are working in unison to prohibit the use of motor car signals which utter discordant and offensive noises.

Such signals fail of their purpose, in that they offend and affright.

A *real* signal warns, and mildly persuades.

## The Jericho Horn Is a Real Signal




It is effective, and in no sense offensive, unless maliciously abused.

It fully meets the necessities of the Automobilist—while duly respecting the rights of the public.

**PRICES**

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**According to size**

*Get in Right* Say "JERICHO" to your dealer, and be popular

The Randall-Faichney Co.
BOSTON
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# Are You Having Brake Troubles?

Be sure about your brakes. They are really the most important part of your car. Your safety depends upon their reliability. If your brakes are giving trouble, if they do not work properly — get rid of them and install the

## "DUPLEX BRAKE"

It has the most improved design. It is a 1912 model—a few years ahead. Equip your car with the "Duplex." Get a brake that is really efficient. Get a brake that acts instantly whether car goes forward or backward. Write for our little booklet on brakes; let us send you some interesting brake facts. We'll tell you what it will cost to put a new set of "Duplex" brakes on YOUR car. We'll also be glad to assist you if you are having brake troubles.

*We also make the famous "Raymond" Brake and "Raybestos" Brake Lining.*

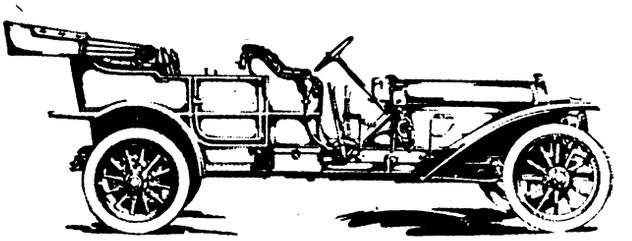


**THE ROYAL EQUIPMENT COMPANY**

**436 Housatonic Ave. Bridgeport, Conn.**


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# Stevens-Duryea



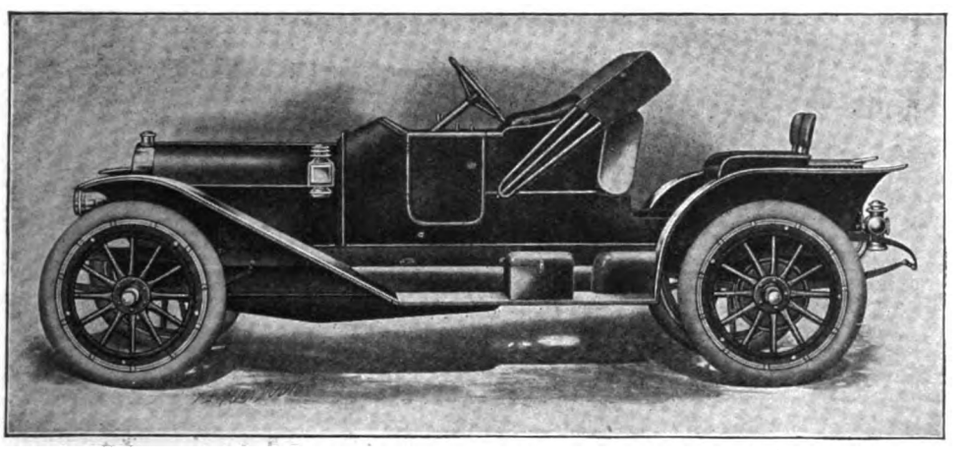
MODEL "Y"

THE beautiful suppleness of the six-cylinder motor, with its powers of rapid acceleration, is a revelation in smooth, shockless and vibrationless travel. The type of motor that makes possible the most comfortable tour; the motor that delivers its power to the rear tires exactly like a turbine engine, is the six.

We Are Justly Proud of the Six-Cylinder Stevens-Duryea Model "Y"

Our latest catalog deals interestingly with this model. Post free.

STEVENS-DURYEA COMPANY
CHICOPEE FALLS - MASS.
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Knox

1911
SERIES

Model "R" 40 H. P. Raceabout. Price $3,300.00

## Up-to-Dateness Is Our Motto

Mr. Dealer: The cars with the most good features are the easiest and best to sell.

KNOX TYPES AND FEATURES ARE ORIGINAL

Our agency proposition is interesting

KNOX AUTOMOBILE COMPANY, Licensed under Selden patent. Springfield, Mass.


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## Standard Equipment

means the best in automobile accessories. They eliminate trouble, reduce cost of upkeep and make motoring safe, comfortable and enjoyable.

Jones Speedometers
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UNITED STANDARD EQUIPMENT MANUFACTURERS — WE PROTECT THE DEALER, THE OWNER AND THE CAR

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Showing Both Cone and Disc Type Clutch.

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Clutches
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## HARDENING
High Speed Steel Hardening a Specialty

Case Hardening, Tool Steel Hardening
Heat Treating and Annealing

BRIDGEPORT METAL TREATING CO.
Bridgeport, Conn.



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## EDELMANN TIRE GAUGE?

If not, why not?

They sell on sight! Because they are what every car owner needs. Indicate the exact pressure in the tire at all times.

Price $2.00 All dealers or prepaid mail on receipt of price

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CHEAPER—MORE PRACTICAL than any other board.

*Send Dimensions.*

THE PARISH & BINGHAM CO., Cleveland, Ohio

## BRISCOE PRODUCTS

Radiators, Hoods, Fenders,
Sheet Metal Parts of All Kinds

Briscoe Manufacturing Co.
General Offices, Detroit, Mich. Factories, Detroit and Newark, N. J.

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14 openings from 7-16" to 1¼", or in millimeter sizes from 6 m.m to 25 m.m., put up in a strong kit bag. These wrenches are drop forged of just the right steel, for hard usage. Write for new catalog of auto tools, all drop forged.

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**"Full Jeweled!" A Splendid Car Perfected!**

Touring Cars, Runabouts and Toy Tonneaus . . $2,750.00
Including Cape Top, Bosch Magneto and Prest-O-Lite Tank in addition to all regular equipment.

*Write for advance circular H.*

**The Corbin Motor Vehicle Corporation, New Britain, Conn.**
Licensed under Selden Patent.

# Franklin 1911 Automobiles

The new flush-sided body of the Franklin automobile is in thorough accord with the new Franklin hood. With no radiator to spoil the effect the body and hood lines are blended harmoniously.

Franklin comfort is made possible by resilient construction, which gives the only luxurious riding, and by the Franklin tire equipment, which eliminates the annoyance and expense of tire trouble.

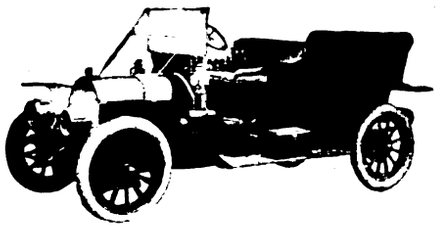
H H FRANKLIN MANUFACTURING COMPANY
SYRACUSE N Y

Licensed under Selden Patent

# MERCER

TOURING CAR
TOY TONNEAU
SPEEDSTER

Each $2150



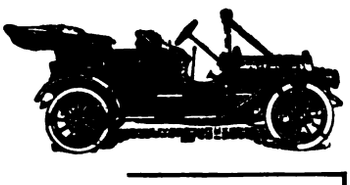
Style, Luxury, Quality, Strength, Speed.

Made Right and Stays Right

*Let us hear from you*

MERCER AUTOMOBILE CO., Box 126, Trenton, N. J.

# $1,600 Cartercar



Model "L," 4 cylinder, 30-35 H.P., 110 inch wheel base, 5 passenger, Friction Transmission. Chain-in-Oil Drive, any number of speeds, will climb a 50% grade with load, including magneto, gas lamps, generator, horn, mats, tools, jack, etc. $1,600.

Model "H," 4 cylinder, 25 H.P., 100 inch wheel base. Runabout $1,100. Double Rumble $1,125 Double Divided Rear Seat $1,150. Miniature Tonneau $1,150.

Write for 1910 catalog.

CARTERCAR CO.
Pontiac, Mich.
Licensed Under Selden Patent.

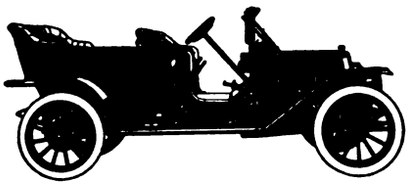
# Badger 30 $1600

112 inch wheel base, 34 inch wheels, quick detachable rims, Bosch dual ignition with storage battery, selective type transmission, Brown-Sharpe gears, F. & S. ball bearings.



*Write for our new liberal agency proposition.*

BADGER MOTOR CAR COMPANY, Columbus, Wis.



**Model "50"— 4 Cylinder Touring Car, . . $2350**
**Model "40"— 4 Cylinder Touring Car, . . $1700**
**Model "30"— 4 Cylinder Touring Car, . . $1250**

## JACKSON AUTOMOBILE CO.

Licensed under Selden Patent. JACKSON, MICH.

# Regal 30

"The Ideal Car for all Purposes"

The only $1250 car with a record of three years of success behind it

## $1250

Runabout, Baby Tonneau, Touring Car, Coupe

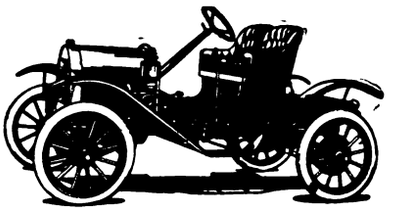
**Greatest Automobile Value in America**

WRITE FOR OUR LITERATURE

REGAL MOTOR CAR COMPANY, Detroit, Mich.

# EVERYMAN'S CAR

Seven Models



Send for Literature

## The BRUSH $485.00

BRUSH RUNABOUT COMPANY
414 Baltimore Avenue, Detroit, Mich.


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GABRIEL

## Another Gabriel Triumph

A new 1911 model Gabriel Horn now ready. Four tones in a single tube. Exquisite melody and a positive warning.

We also make three toned single tube horns.

If we had your address we'd write you; as you have ours, won't you write us and get the latest?

**GABRIEL HORN MFG. CO**, 1417 E. 40th Street, CLEVELAND

The ~~Inter-State~~ "40"

## Highest Grade—Moderate Price

**With its graceful lines, longer wheel base, luxury and roominess, power, speed and durability, the 1910 Inter-State car at $1,750 is your money's worth, dollar for dollar. No car at any price is better. Improvements this year are standard and found only in highest priced cars. Get our catalog.**

INTER-STATE AUTOMOBILE CO. MUNCIE, IND.

(10) Licensed under Selden patent.

**Not a Car of Advertised Value, But a Car of Intrinsic Worth.**

STERLING

**$1750**

Let us send you our Catalog

**ELKHART MOTOR CAR COMPANY, Elkhart, Ind.**

THE MARMON

"The Easiest Riding Car In The World"




A Vanderbilt Winner.

Stock "Thirty-two," going 190 miles in 190 minutes without a stop. Price, $2650. Licensed under Selden Patent. Write for catalog.

Nordyke & Marmon Co., (Estab. 1851) Indianapolis, Ind.

THE ~~SELDEN~~ CAR

FOR 1910

| | |
|---|---|
| 5-Passenger Touring Car | $2,000 |
| 3-Passenger Roadster | 2,000 |
| 4-Passenger Torpedo Tonneau (Magneto Included) | 2,250 |
| 7-Passenger Touring Car (Magneto Included) | 2,500 |

Booklet and specifications upon application.

**AGENTS WANTED IN UNOCCUPIED TERRITORY.**

SELDEN MOTOR VEHICLE CO.

GEO. B. SELDEN, President, - ROCHESTER, N. Y.

Licensed under Selden patent.

THE THOMAS FLYER is the champion endurance car of the world. Over 80 per cent. of the people who own Thomas Flyers previously owned other cars. They were in a position to appreciate automobile values. The Thomas Flyer is now their unqualified choice.

The E. R. Thomas Motor Company maintains a force of traveling experts who periodically call upon every Thomas owner and make sure that his car is in good condition. Let us send you some of the letters from our owners and some of our interesting engineering literature.

E. R. THOMAS MOTOR CO., Buffalo, N.Y.

Licensed under Selden Patent.

K-R-I-T

**"The car with the invisible start."**

96 in. wheel base
32 in. wheels

**22½ H. P. $800**

**Sliding gear transmission. Multiple disc clutch. Weight, 1200 lbs.**



**Runabout $800.**
**Roadster $825.**
**Surrey $850.**

**Write for Catalog**

**K-R-I-T Motor Car Company**

**DETROIT**

National



**A Magnificent Stock Car With An Unequaled Racing Record**

Bigger, Faster, More Powerful, More Luxurious Than Any Car Near Its Cost **$2,500**

**National Motor Vehicle Co.**

**1007 E. 22d Street** Licensed under Selden Patent **Indianapolis, Ind.**


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# ALUMALOYD SHEETS

A SPECIAL ANALYSIS SHEET COATED WITH ALUMINUM-ALLOYED METAL



## They're worth looking up, Mr. Auto Builder, Because—

You cut out time-consuming, output-retarding,, expensive, preliminary work and get down to business in the finishing department, right at the start.

No sandpapering, rust-scouring, pumice-stoning, putty coating or applying of roughstuff. All ALUMALOYD requires for a high and durable finish is a primer, a one-color coat, a rubbing and a finishing varnish.

Honestly, can you beat that? And aren't you beating yourself out of time, capacity and money by loitering along in the old slow way?

Ask for the details NOW.

**THE STARK ROLLING MILL CO.**
**Alumaloyd Sheet Department**
**Canton, Ohio**

# "Made by Trunkmakers who are Motorists"



The
**KAMLEE**
**is the only real auto trunk**

It is built to meet all the requirements of the touring motorist—and it is the only one that does. Every practical idea of serviceability, convenience and appearance is featured in the Kamlee Trunk. It

**Conforms to the Shape of Any Car**

no matter what the make or type may be—special designs being made to fit cars with cut in backs. It has a patent drop front which enables you to remove articles from the bottom without disturbing the contents at the top.

**Send for Leaflet**

giving complete information of its perfect construction—and prices.

*The Kamlee Trunk is fully protected by Patents, and all infringements will be prosecuted.*

**THE KAMLEE CO.**
**345 Milwaukee Street**
**Milwaukee, Wis.**

Rain Proof

Dust Proof




# A Real Battery
## AT A REAL BARGAIN

We have on hand a number of 6 v. 60 amp. dry type storage batteries, built for us by one of the best known manufacturers. These batteries were built to sell at $26.00 and are worth the money, but as we have accidentally become overstocked, we offer them while they last at $12.50.

No better battery is built or sold at any price.

**EXCELSIOR SUPPLY CO.** (*Estab. 1876*) **Randolph St. Bridge CHICAGO, ILL.**

# SERVICE and SATISFACTION

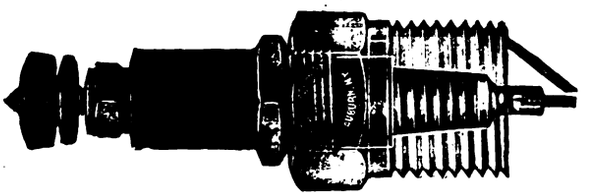
**are assured when**

# G&J TIRES

**are used.**

**G & J TIRE CO., Indianapolis, Ind.**
**We Sell Continental Demountable Rims.**

# SPARK PLUGS and TIMERS



**No. 2. Mica and Porcelain Interchangeable**

Made of the finest materials and most accurate workmanship, they give the right results. Write us.

**(Please get the name right)**

**AUBURN IGNITION MFG. CO., Auburn, N.Y.**

# Diamond

## The Pioneer Motor Tires of America

FIRST—BEST

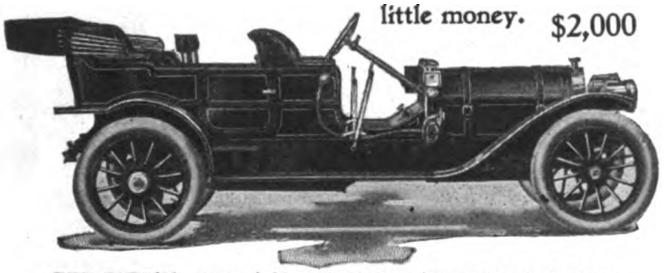
**THE DIAMOND RUBBER COMPANY, Akron, Ohio**


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# Empire Tires
WEAR LONGEST

EMPIRE TIRE CO., Trenton, N.J.

THE
# MITCHELL SIX
**The only six cylinder car in the world that sells for so little money.** $2,000



SILENT AS THE FOOT OF TIME

Specifications: MOTOR, 4½x5. TRANSMISSION, selective type. WHEELS, 36x4. WHEEL BASE, 130 inches. IGNITION, magneto and dry cells. Color, dark blue, cream running gear; option, dark maroon, cream running gear. TOOL BOXES, steel baked enamel. SEATING CAPACITY, seven passengers. STEERING WHEEL, natural finish. SPRINGS, platform type. BODY OPTIONS, seven-passenger touring car or close-coupled body. EQUIPMENT, oil lamps and horn, full tool equipment, including jack.

# MITCHELL

Licensed under Selden patent.

*F. O. B. Racine, Wis.* Racine, Wis., U. S. A.

# WETHERILL FINISHED CASTINGS

¶ Die cast from Parson's white brass make the finest kind of engine bearings.

¶ Absolutely accurate and every one interchangeable.

¶ We are now making 25,000 bearings per day, and increasing output as rapidly as possible. A case where quality is recognized and put to use.

WETHERILL FINISHED CASTINGS COMPANY
PHILADELPHIA, PA.

# KEEP DOWN THE UP-KEEP



There never was and there never will be a mineral oil that won't sooner or later cause magneto trouble. And Cylinder oils—even the best, the costliest, are mineral oils. They all eventually clog delicate bearings.

3-in-One is the very best oil for magnetos because it won't gum, dry out, harden, gather dirt, heat up, smoke, burn. It keeps the bearings "clean as a whistle"—makes the magneto run like magic.

3-in-One is the best preparation for polishing and preserving the varnished surfaces and all leather parts. Also preventing rust on all metal parts.

8 oz. 50c.—3 oz. 25c—trial size 10c. All garages and supply dealers. Write for FREE SAMPLE today.

3 IN ONE OIL CO., 64 Broadway, New York.


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# The Locomobile Announcement 1911

## The "30" Shaft Drive-Four Cylinders
## The "48" Shaft Drive-Six Cylinders

**High Tension Dual Ignition System** on both models. Four speed selective transmission. A wide range of the latest body styles – either with or without front doors – can be supplied. Touring, Baby Tonneau, Runabout, Torpedo, Limousine and Landaulet. Finished in any color scheme desired by the purchaser

COMPLETE·INFORMATION·FURNISHED·ON·REQUEST

THE BEST BUILT CAR Locomobile IN AMERICA

**The Locomobile Co·of America**

New York Bridgeport, Conn. Boston
Philadelphia San Francisco Chicago

THE BEST BUILT CAR Locomobile IN AMERICA

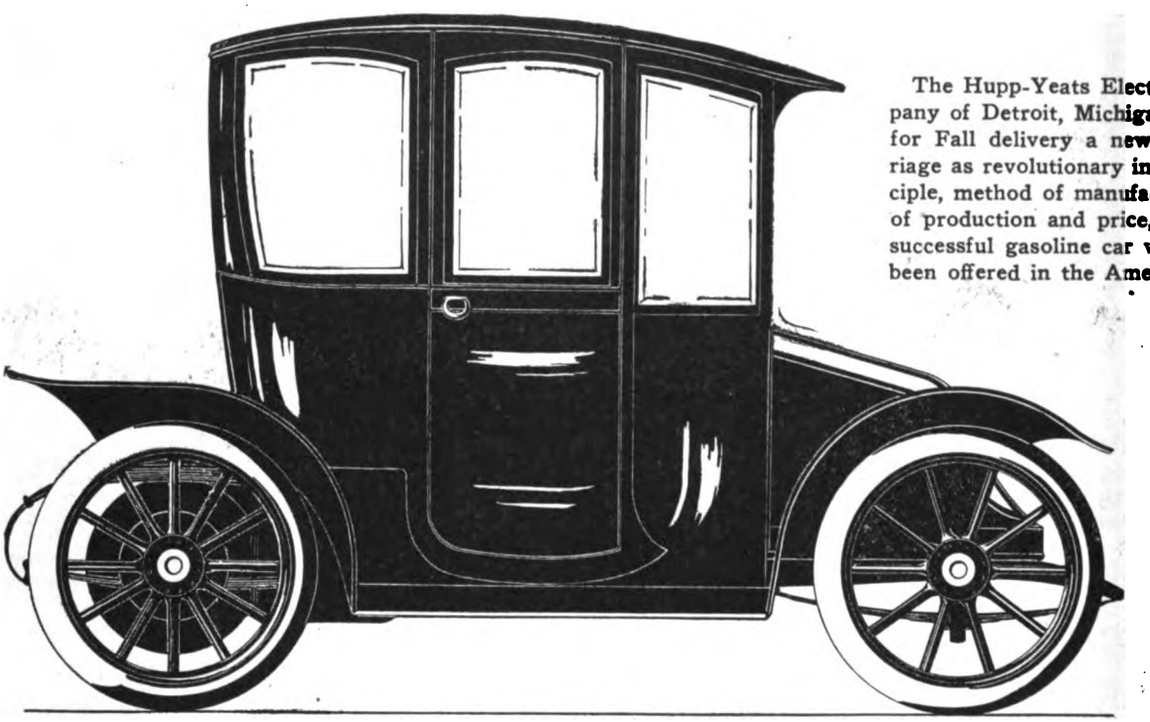
LICENSED UNDER THE SELDEN PATENT


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# Dealers Write at Once

# HUPP-YEATS

## A New Star in the Electric Car Firmament



The Hupp-Yeats Electric Car Company of Detroit, Michigan, announces for Fall delivery a new electric carriage as revolutionary in design, principle, method of manufacture, volume of production and price, as the most successful gasoline car which has yet been offered in the American market.

## Gasoline Car Economies applied for the first time to the Electric Carriage

Up to the present time the production of electric carriages has been a carriage-building business—with all the expense of slow and small production which that phrase implies.

The Hupp-Yeats Company, amply financed and splendidly equipped, after months of experimental work, is about to introduce into the industry a new element of manufacturing economy, aggressiveness and salesmanship.

The Hupp-Yeats carriage will bridge the gap that exists between the present unprogressive type and the moderately-priced electric, which thousands of women have been expecting, and which they will be ready and eager to buy, the moment it appears.

This will be accomplished not by the sacrifice of even a single small item of elegance and efficiency, but by producing along gasoline car lines, an electric car of the very latest French design, superior in every essential—larger, more luxurious, more beautiful, and an infinitely better value.

Car for car, the Hupp-Yeats will employ even costlier materials than present types selling for $1,000 to $2,000 more.

It will employ a pressed steel frame;
—a drop forged front axle;
—a rear axle housing of aluminum;
—a direct motor drive to the rear axle;
—imported ball bearings throughout;
—and a number of other original noteworthy advantages;
—Exide batteries;
—Westinghouse motor.

In every city in which the electric carriage has secured a foothold and in dozens of towns which have heretofore considered the prices prohibitive, the Hupp-Yeats will immediately find all the way from ten to one hundred buyers.

The demand for such a car is ready and waiting—educated and encouraged by other manufacturers who have not, however, been able to offer an attractive price.

The Hupp-Yeats car will be extensively advertised by the same man who has handled the publicity campaigns of the Hupmobile, Cadillac, Elmore, Buick, Speedwell, and half a dozen other notably successful cars.

We want dealers.

They must be experienced.

They must understand the electric.

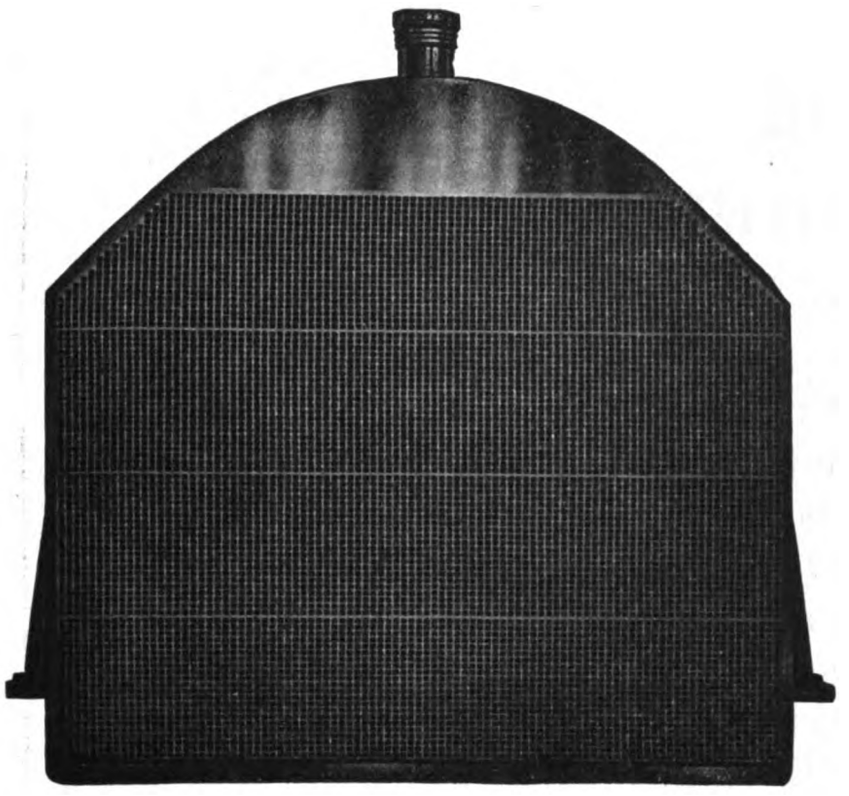
They must be financially responsible.

They must be in touch with the best trade in their town.

Dealers in larger cities had better communicate or visit Detroit at once.

## HUPP-YEATS ELECTRIC CAR CO., Dept. "E", Detroit, Mich.

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¶ Good advice—

# Put Up a Good Front —then make good.

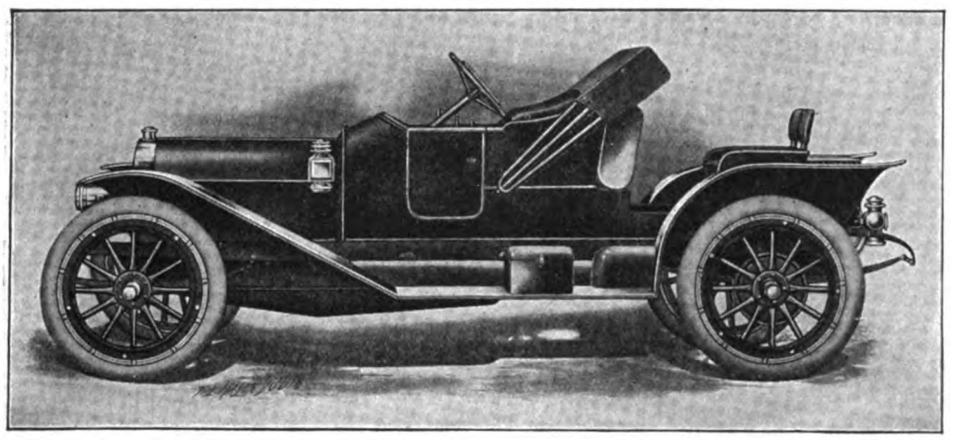
¶ That's what MAYO RADIATORS are doing and have been doing for years on America's best known and best liked cars.

¶ The list has increased as fast as we were able to take care of it.

¶ The superiority of MAYO RADIATORS was long since established.

¶ MAYO RADIATORS today are simply living up to their reputation than which nothing better could be said.

**MAYO RADIATOR COMPANY**
**New Haven, Conn.**



Knox

**1911 SERIES**

**Model "R" 40 H. P. Raceabout. Price $3,300.00**

## Up-to-Dateness Is Our Motto

**Mr. Dealer: The cars with the most good features are the easiest and best to sell.**

KNOX TYPES AND FEATURES ARE ORIGINAL

**Our agency proposition is interesting**

**KNOX AUTOMOBILE COMPANY,** Licensed under Selden patent. **Springfield, Mass.**


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# Self-Cranking Sweet-Running Six-Cylinder

*Write today for literature*

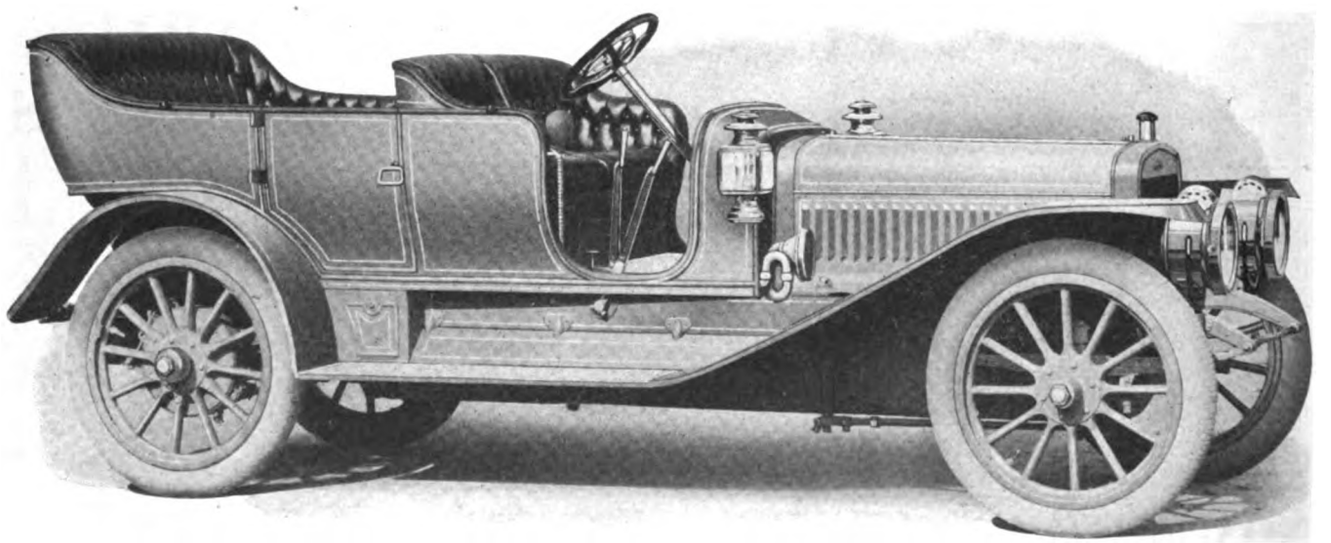
Note its 48 H. P. smooth-as-velvet motor, with cylinders offset and every working part fully housed. Multiple-disc clutch and four-speed selective-type transmission run on finest ball bearings. Dual ignition: Bosch magneto and Exide battery. Frame narrowed in front for short turns, and raised at rear to allow low suspension of motor and body. Drop-forged front axle. Full floating-type rear axle.

**WINTON SIX**

Sells at $3000. To know its full value, compare it with cars selling as high as $6000. You will find it worthy of the consideration of every man who thinks well enough of himself to want in his service the latest and best utilities his money can buy. Touring car body is a beautiful straight-line design, seating five. Superb torpedo, roadster, toy tonneau, landaulet and limousine bodies.

You will enjoy the design of this superb 1911 car, and will delight in its smooth and majestic performance. Only car in the world that cranks itself. Holds the world's record for lowest upkeep—77 cents per 1000 miles. Abundant power for hills. Has that marvelous flexibility possible only in six-cylinder motors. This is our fourth year of sixes exclusively, and this is the fourth annual model of a car that has never required a single radical correction.

THE WINTON MOTOR CAR. CO.
426 Berea Road, Cleveland, Ohio
Licensed under Selden patent.




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ADDRESS ALL COMMUNICATIONS TO THE COMPANY TELEPHONE, 7400 COLUMBUS

# New York Taxicab Co.

622 WEST 57TH STREET

NEW YORK May 14th 1910.

Timken Roller Bearing Co.

Canton,

Ohio.

Gentlemen:-

We operate over 500 imported Taxicabs in New York City and vicinity.

Due to the hard service they have to give, we had to equip all our Chassis with Timken Roller Bearings, in both front and rear wheels.

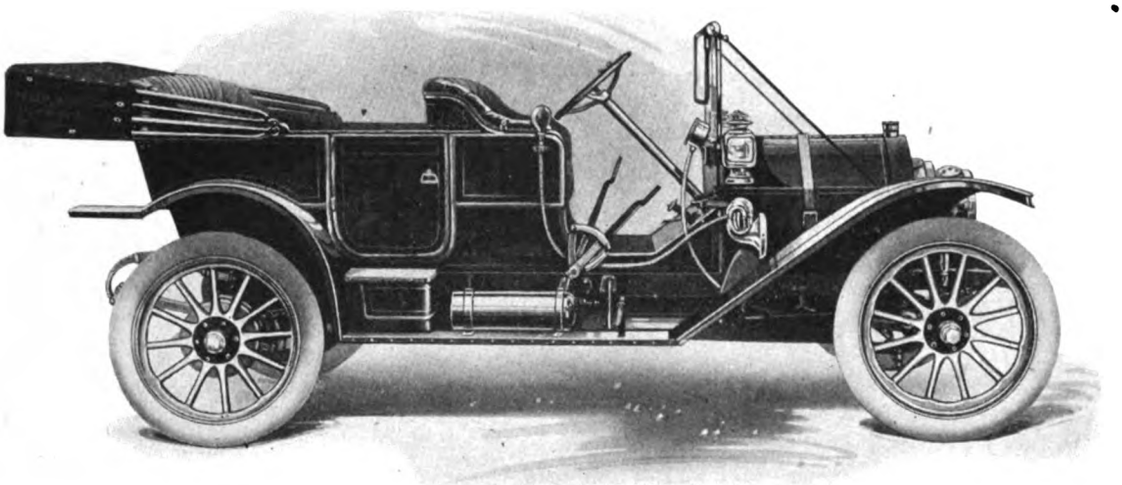
Our experience with and use of Timken Bearings has been most satisfactory, and has permitted us to eliminate the serious troubles we had before.

Yours truly,

NEW YORK TAXICAB COMPANY.

Chief Engineer.

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MODEL 20—FIVE PASSENGER

# 1911 HAYNES CARS

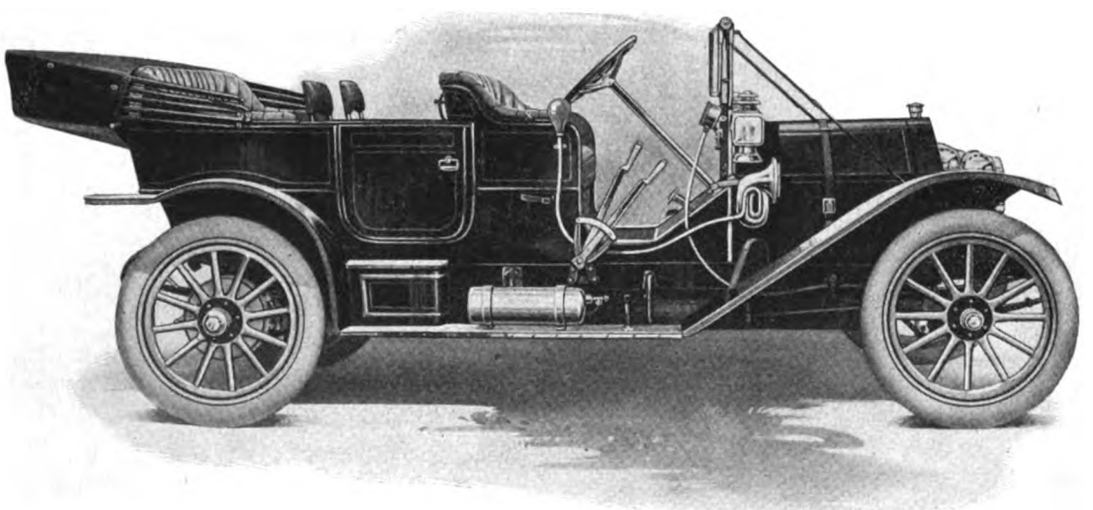
**Five-Passenger Touring, with 35-40 horsepower, $2000**
**Seven-Passenger, with 50 horsepower, . . 3000**

Other Models to be announced later.

*The only cars of established reputation selling at a moderate price.*

Agents wanted for the 1,000 additional cars we will build for 1911.

HAYNES AUTOMOBILE COMPANY, Dept. C, Kokomo, Ind.



MODEL Y—SEVEN PASSENGER


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# The Equipment of America's Best Cars

THE following automobile manufacturers permit us to announce that they are using

# "Firestone"

## QUICK-DETACHABLE DEMOUNTABLE RIMS

The Acme Motor Car Co.
American Locomotive Co.
The Bartholomew Co.
The Berkshire Car Co.
B. C. K. Motor Car Co.
Chadwick Engineering Works
Chalmers Motor Co.
Coates-Goshen Mfg. Co.
Cole Motor Car Co.
The Corbin Motor Vehicle Corporation
The Croxton-Keeton Motor Co.
Fal Motor Co.
Inter-State Automobile Co.
Marion Motor Car Co.
Matheson Automobile Co.
Mercer Automobile Co.
Moline Automobile Co.
Moon Motor Car Co.
Packard Motor Car Co.
Mora Company
National Motor Vehicle Co.
Owen Motor Car Co.
Palmer & Singer Mfg. Co.
The Pope Mfg. Co.
Premier Motor Mfg. Co.
Pullman Motor Car Co.
Selden Motor Vehicle Co.
Simplex Motor Car Co.
The Speedwell Motor Car Co.
Springfield Motor Car Co.
Staver Carriage Co.
Studebaker Automobile Co.
The Stuyvesant Motor Car Co.
E. R. Thomas Motor Co.
Velie Motor Vehicle Co.

—and most of the other progressive manufacturers realize the great advantages of this equipment and are large users of the up-to-date Firestone rims.

Firestone Quick-Detachable Demountable Rims are growing in popular favor faster than any other demountable rims. Up-to-date cars demand up-to-date demountable rim equipment.

No lugs or staybolts to bother with — any number of tire changes possible per trip — easiest to operate and safest to use.

## THE FIRESTONE TIRE & RUBBER COMPANY

"America's Largest Exclusive Tire Makers"

Akron, Ohio

Branches, Agencies and Dealers Everywhere

# "Firestone" Quick-Detachable Demountable Rims


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# Hess-Bright Balls are Unbreakable



HESS-BRIGHT Balls are unbreakable, not only under the loads of service, but by any ordinary means.

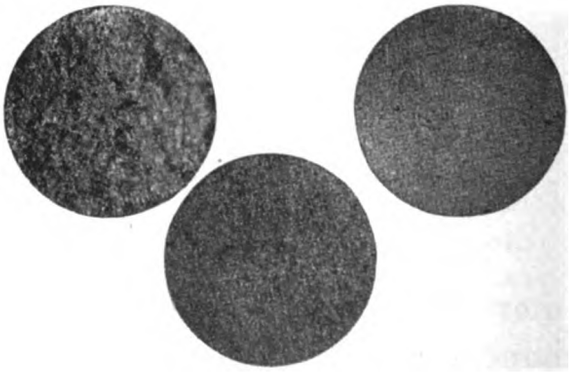
When a friend of ours wanted to satisfy his curiosity regarding HESS-BRIGHT Ball Bearings, some time ago, the laboratory reported that the balls couldn't be broken, and he had to devise special apparatus for the purpose.

That unbreakable feature has a notable significance. HESS-BRIGHT Balls are not only unbreakably tough, but hard—so hard that a file won't scratch them—and they are hardened uniformly clear through.

The effect of the hardness is to permit a mirror-like polish. The polish which a piece of steel will take is proportional to its hardness, and no carbon steel is as hard as the alloy steel used in the HESS-BRIGHT Balls.

Now, other things being equal, the higher the polish the longer the bearing will last. Under a strong magnifier, ordinary polished steel discloses scratches and pock-marks; HESS-BRIGHT Balls still look smooth.

When balls and races are even microscopically rough, there is a crushing and grinding action. Both the smoothness and the hardness of HESS-BRIGHT balls and races are factors in their recognized durability.



**Representative steel balls fractured in our laboratory, enlarged 50 diameters. The right-hand ball is a Hess-Bright. Note the extreme fineness and uniformity of its grain.**

To break balls, three are piled vertically in a form and subjected to crushing load. The metal compresses and spreads at the points of contact, splitting the balls vertically with a report like a pistol shot. About 35 tons is required to break 1-inch Hess-Bright (DWF) balls. We test in this manner samples from every lot received.

**See that your next car has HESS-BRIGHTS**

THE HESS-BRIGHT MANUFACTURING CO.
2109 Fairmount Avenue
PHILADELPHIA, PA.


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# Something New

# The Juniorette $15

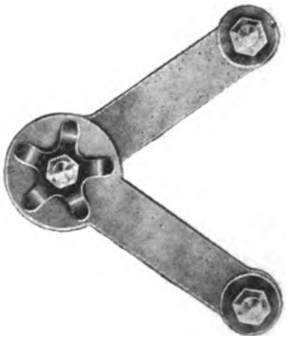
A genuine TRUFFAULT-HARTFORD of sterling make, same quality, same durability, same efficiency as all other TRUFFAULT-HARTFORD models—This new model of the

# TRUFFAULT-HARTFORD
## SHOCK ABSORBER

is a boon to the owner of every small car—no more bumping around. Every small car can be made easy-riding without overtaxing its owner's pocketbook. This astounding price has been made possible by the installation in our factory of more labor-saving, high efficiency tools, the purchase of raw material in large quantities, at a big saving in price, and an enormous output.

**Especially adapted for use on such cars as Ford Runabout, Hupmobile, Buick 10 Runabout, Maxwell AA Runabout, Single Cylinder Cadillac, and other small cars of the same type. Also Baker, Waverly, Detroit, Woods and other electrics, etc.**

If you own such a car—write us at once. We can furnish blue prints, showing how easy it is to attach a set to your particular car. The "JUNIORETTE" will make that car of yours ride more comfortably at less expense. On the smallest car, as well as on the largest, the TRUFFAULT-HARTFORD SHOCK ABSORBER is not an accessory—but a necessity.



**THE JUNIORETTE**

May we send you further information, including copy of our magazine "Auto Comfort," and latest catalog? Fill in the attached coupon and complete information will be sent by return mail

## TO DEALERS

**We have some new attractive display signs and will be pleased to furnish you with suitable literature for disposition to your customers with your name and address imprinted. If you want something to help you increase your business drop us a line today.**

## Hartford Suspension Company

**164 Bay Street, Jersey City, N. J.**

**BRANCHES**

**212 West 88th Street, New York, N. Y.**
**319 Columbus Avenue, Boston, Mass.**
**1458 Michigan Avenue, Chicago, Ill.**
**250 North Broad Street, Philadelphia, Pa.**

HARTFORD SUSPENSION CO.,
164 Bay St., Jersey City, N. J.

Name .....

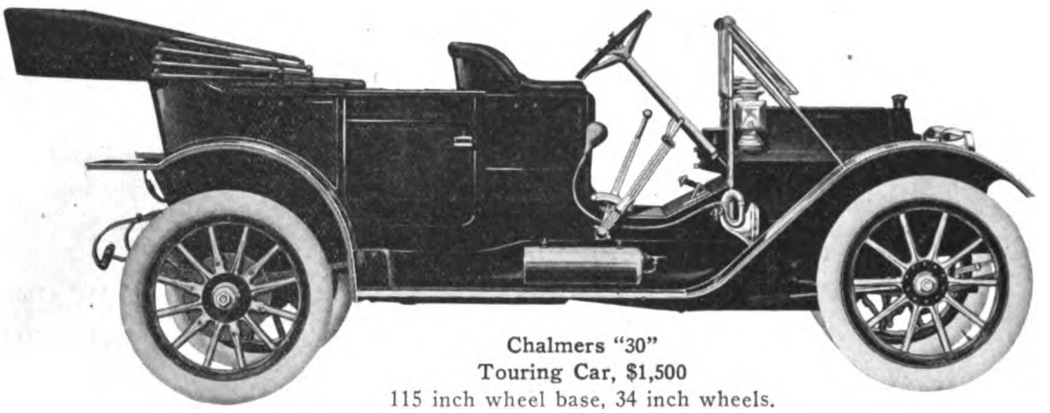
Address .....

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Send me complete information.

MOTOR WORLD

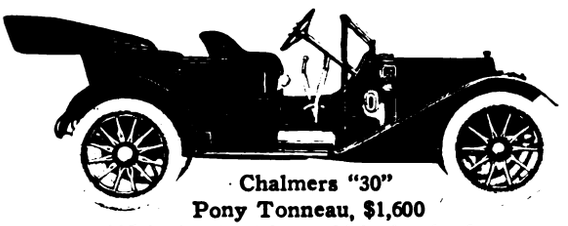
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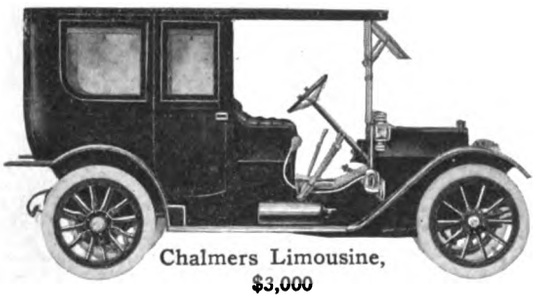
Chalmers "30"
Touring Car, $1,500
115 inch wheel base, 34 inch wheels.

# Chalmers
## MOTOR CARS

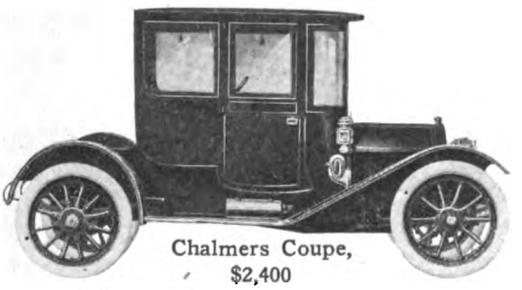
# Announcement of 1911 Models



**Chalmers "30"**
**Pony Tonneau, $1,600**
115 inch wheel base, 34 inch wheels.



Chalmers Limousine,
$3,000
Built on "30" Chassis, Landaulet at same price. This price includes complete equipment.



Chalmers Coupe,
$2,400
Built on "30" Chassis, seats for three, extra seat facing driver. This price includes complete equipment.

IN announcing the Chalmers models for 1911, the most noteworthy fact is that in all vital features they remain the same as the cars that have created world's records for efficiency, endurance, and speed—such as winning the Indiana and Massapequa trophies—blazing the way from Denver to Mexico City and mapping the path for the Glidden Tour of 1910. Trade papers last year gave the Chalmers the title of "Champion Cars."

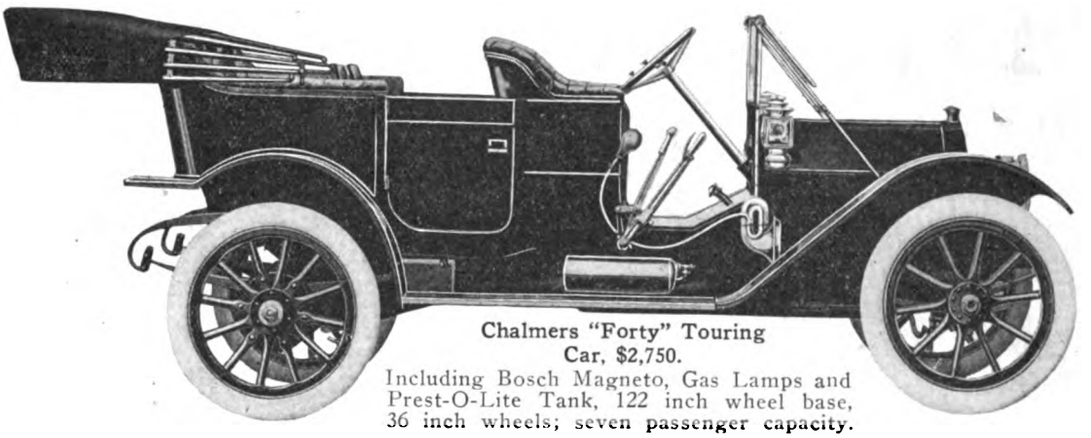
The best evidence of Chalmers merit, however, is not the trophies won in tests of all kinds, but thousands of satisfied users, the majority of whom have the means to purchase cars of any kind.

The people who buy Chalmers Cars are those who know how to judge motor car values regardless of prices and advertising claims.

Many of the Chalmers buyers are of the class to whom money does not have to be an object. People who can pay any prices constantly show their preference for the medium priced Chalmers.

Look over the list of automobile buyers in your own community and see if these statements are not true. Talk to some of the Chalmers owners; their enthusiasm will prove our claims.

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Chalmers "Forty" Touring Car, $2,750.
Including Bosch Magneto, Gas Lamps and Prest-O-Lite Tank, 122 inch wheel base, 36 inch wheels; seven passenger capacity.

**In General,** the greatest improvement on the 1911 Chalmers consists in refinement of detail, like the artist's final touch to the masterpiece. Lines have been beautified in body and fender, so that—viewed from any angle—no car, whether it costs $5000 or more, affords more eye-delight than the Chalmers.

On luxury-priced cars, the purchaser naturally expects not only the highest standard of workmanship, but the most costly materials, whether upholstery, trimmings or paint. Never before has it been possible to duplicate this excellence in a moderate priced car—for example, the Chalmers "30" receives sixteen coats of paint, requiring five weeks to finish it.




On the Radiator

**In detail**—the curves just back of the tonneau doors have been straightened out, making the low, rakish, straight-lined bodies which every maker strives so hard to obtain. The seats have been lowered, adding materially to the riding comfort.

The tonneaus of both "30" and "Forty" have been made longer and wider. The fenders have been changed slightly, adding to the graceful appearance of the car and at the same time affording greater protection from water and mud.

The brackets supporting the running boards are fastened inside the frame, making the exterior of the car appear perfectly smooth.

On the "30" the dash, heel boards, and the door strips are of black walnut, on the "Forty" Circassian walnut. All handles, mouldings, levers, etc., are shapely and massive.

The battery box has been placed under the tonneau floor and a tool box big enough to hold a pump placed on the left running board, a change that every driver will praise.

Both the "30" and "Forty" motors remain unchanged in principle although small refinements of detail and workmanship insure that they will be even smoother running and quieter than ever before, without the sacrifice of power, which is too often the case in so-called "silent" cars. New style carburetors are used on both motors and their economy and uniformity of operation under all conditions will surprise every buyer.

On the "30," we furnish a Bosch magneto, big new-style gas lamps, Prest-O-Lite tank and a special Chalmers top—all for $200 additional.

These tops, of special Mohair or Pantasote, are made in our own shops and designed to fit and look best on Chalmers cars. They are equal in quality to tops furnished on the highest priced cars.

As in former years, the Chalmers principle is not to make as many cars as possible, but to make them as good as possible. Chalmers cars are built on a quality, not a quantity basis. We regret that we could not furnish cars on the 1910 models for all who wanted them. We fear that some may have been offended at being told they could not get the cars they wanted. It is sometimes harder to tell a man he can't have a thing than to show him why he ought to have it.

We would like to take care of every one who wants a Chalmers car, and yet it is not our ambition to build cars in very large quantities; hence we would advise you to place your order early.

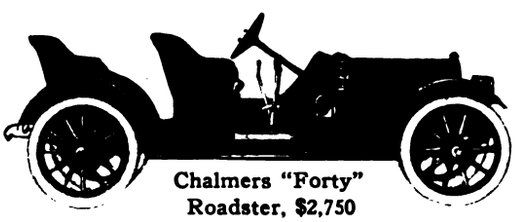
Demonstrating cars are being sent to our dealers all over the country this month. Deliveries to customers begin August first. Write for the new catalog AD and name of the nearest dealer.

# Chalmers Motor Company, Detroit, Mich.

*(Licensed under Selden Patent)*



**Chalmers "Forty" Torpedo Body, $3,000**
122 inch wheel base, 36 inch wheels. Including Bosch Magneto, Gas Lamps, Prest-O-Lite Tank and five demountable rims.



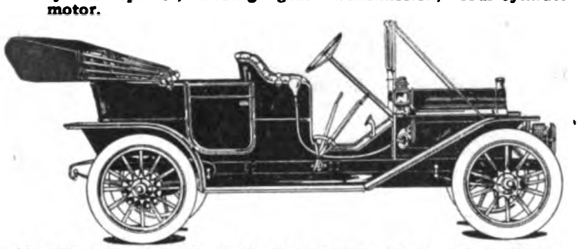
**Chalmers "Forty" Roadster, $2,750**
122 inch wheel base, 36 inch wheels. Price includes Bosch Magneto, Gas Lamps and Prest-O-Lite Tank. We also make a '30" Roadster at $1,500.

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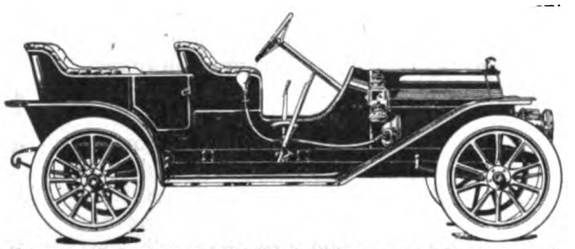
# 1911 ANNOUNCEMENT

## The 1911 E-M-F "30"

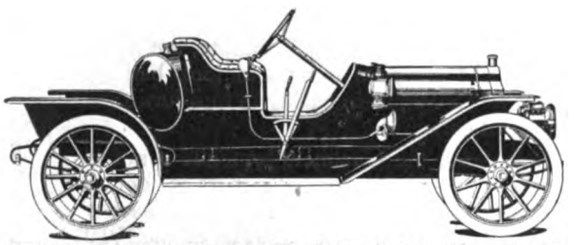
**Thirty horsepower, sliding gear transmission, four-cylinder motor.**



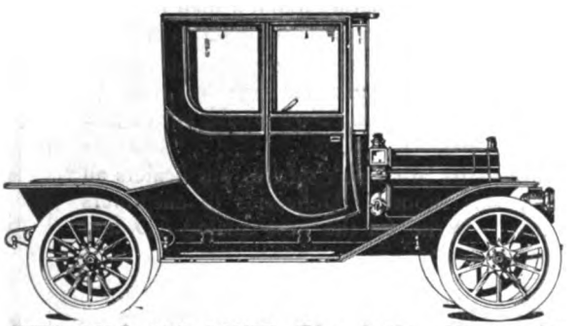
STANDARD E-M-F "30" TOURING CAR—Price, $1,250. Seating five passengers. Magneto, five lamps, horn and generator included. This model is now being delivered at a rate of 50 a day.



NEW E-M-F "30" DEMI-TONNEAU—Price, $1,250. Magneto, five lamps, horn and generator included. Deliveries on this model will begin in January, 1911.



NEW E-M-F "30" ROADSTER—Price, $1,200. Magneto, five lamps, horn and generator included. Deliveries on this model will begin in January, 1911.



NEW E-M-F "30" COUPE—Price, $1,650. Magneto, five lamps, horn and generator included. Deliveries on this model will begin in October, 1910.

### THE SPECIFICATIONS

Our E-M-F "30" and Flanders "20" chassis remains unchanged for 1911 and the same standard specifications which have proven so successful, practical and economical in operation will be the rule during the coming season. There will be the same powerful motor, simple carburetor, practical rear axle transmission, automatic oiling system, safe steering apparatus and other practical features constructed by the same superior workmen from the highest class of materials. No necessity for changes appears in the case of a product which has stamped itself as standard and absolutely successful.

## Production in Large Quantities Enables Us to Build Better Cars for Less Money

### One Year's Guarantee With Every Car

The E-M-F Company believes that a stage has been reached in the automobile industry which makes it the duty of every responsible manufacturer to protect dealers and public by an absolute guarantee of his product.

We accordingly announce that, beginning August 1, 1910, every car manufactured at our plants WILL BE GUARANTEED FOR ONE YEAR as absolutely free from defects in material or workmanship, and will replace, free of charge, any part of the car OR ITS EQUIPMENT which proves defective in any such respect.

EVERITT-METZGER-FLANDERS COMPANY

W. E. Flanders

President & General Manager.

A STARTLING DEVELOPMENT in manufacturing, is it not? Yet it is one which comes appropriately from the factory which was the first to give the public a satisfactory car at a reasonable price, and the company whose policies have always been pre-eminently original and progressive.

HOW CAN WE AFFORD TO DO IT? That is the question which is naturally first on the lips of the man unfamiliar with the E-M-F Company's progress and the merits of its output. There are several reasons, and here they are. The E-M-F Company will furnish absolute protection to its dealers and purchasers—the first time any such promise has been made in the history of the industry—because:—

WE MAKE ALL OF OUR OWN CAR. The E-M-F Company alone can say—and prove the statement—that every part which is assembled to build an automobile is manufactured in its own mammoth plants—plants conceded the most efficient in the industry, with machinery more specialized and organization better systematized than any firm of its character.

WE KNOW OUR PRODUCT and we have confidence in it—confidence born of years of successful manufacture and nurtured by the severest tests to which motor cars can be put.

WE BUILD 36,000 CARS A YEAR and are enlarging our capacity as rapidly as our contractors are able. Unlike some automobile manufacturers who say they aim to produce only a few cars of high quality and profess to believe that, the smaller their output, the better is each car, we maintain that the more cars we build according to our methods, the better is each individual car and the less is its cost both to us and the purchaser.

PRODUCTION IN LARGE QUANTITIES ASSURES QUALITY in each item of manufacture, according to E-M-F Company methods. It gives us the opportunity of providing, at a minimum price to each purchaser of E-M-F "30" and Flanders "20" Cars the most skillful engineers, the most efficient mechanical force and the most versatile array of automatic machinery ever gathered for one purpose in a manufacturing enterprise. It enables us to add to our equipment a laboratory where we test every carload of raw steel which enters into the manufacture of our cars. The purchaser of a car made at a smaller factory must pay more for every department of manufacture or else—far more likely—he pays for a product designed and manufactured by second-class men provided with second-class facilities.

## E-M-F COMPANY, Automobile Manufacturers, Detroit, Mich.

Licensed under Selden patent.

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# OF THE E-M-F COMPANY

## During the Second Quarter of 1910, According to Our Official Report Sent to the A. L. A. M., We Manufactured and Shipped 6,594 Automobiles, Representing in Cash More than $6,500,000.

PROVE IT? WHY, OF COURSE! Does the housewife who wants a sewing machine go rambling about the retail district, looking for a product made by hand in some small factory and therefore supposedly superior to a Singer that comes from a factory where they make a million machines a year and sell them through their own branches? Does the hunter who wishes a good rifle search something superior to the product of the Winchester Company which, by quantitative production, has made rifle-manufacture a science? Does the man who wants an adding machine ask for something better than the Burroughs and believe it possible for another company to make a better machine because it manufactures only a few score where the Burroughs manufactures by the thousand? Does the man who wants to buy a watch shun the counter where he would find the Waltham, Elgin or South Bend, and seek the little corner occupied by an obscure brand of timekeeper, manufactured by a company compelled to sell at a higher price, though providing an article unproven and comparatively unknown? Is the Steinway piano an unwelcome piece of furniture in the home of a musician because, forsooth, the manufacturers build them in large quantities which find a ready market at a reasonable and therefore popular price? Does the farmer who needs a wagon waste his time looking for something better than the Studebaker, merely because, by the systematic manufacture of 200,000 vehicles annually, that firm has made its product the standard article of the world? The answers are, of course, obvious. And the same course of reasoning is logical for the man in the market for a watch, a piano or an automobile. There is a standard in each realm of manufacture and "Standard" is synonymous with "Excellence."

A STANDARD ARTICLE; THAT'S IT! It has been the ambition of the E-M-F Company to build that very thing. And why not a standard for automobiles? The industry is surely old enough; the universal manner in which the E-M-F "30" and Flanders "20" cars are running in every city and almost every hamlet of the United States and Canada makes the claim logical. We are the one company that is building automobiles as the Singer builds sewing machines, as the Winchester builds rifles, as the Burroughs builds adding machines, as the Waltham, Elgin and South Bend build watches, as the Steinway builds pianos, as the Studebaker builds wagons and carriages—in large quantities and by expensive machinery which makes every part of every individual entirety of the product available for use in every other one. Standard? Why, of course, and therefore the most desirable.

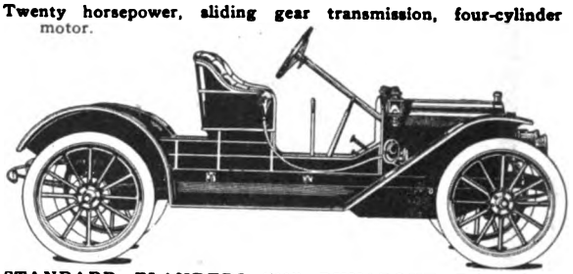
THE SAME SQUARE DEAL we have always given our distributors throughout the world will remain in force in the future and we are now making contracts for the season of 1911. The work of distribution we believe will be facilitated by the establishment of a system of branch houses where dealers and owners may obtain supplies and extra parts. A list of these branches appears below.

ANOTHER NEW POLICY which we are announcing today concerns particularly the relations between the E-M-F Company and our agents. Several manufacturers are at present engaged in an endeavor to persuade their distributors to handle the one line exclusively in 1911. In many cases such overtures have been made to E-M-F Company dealers who have handled other cars in combination, during 1910. As a result we have received hundreds of letters during the past month from dealers anxious to renew their contracts, asking if, for the coming year, we are expecting to ally ourselves with the exclusive representation movement. To such inquiries we are replying emphatically "No!" E-M-F Company distributors are free to handle all the lines they believe consistent with their policies, whatever they may be.

WE WELCOME SUCH AN ARRANGEMENT. The E.-M-F Company does not ask nor expect exclusive representation. We are not dictating the business arrangements of our agents. We believe that they should have the power to represent what companies they may elect. We certainly do not fear the competition of any other line of cars and will genuinely appreciate the opportunity to show our cars on the same floor with any others of their type. We shall stand by this policy and are ready to complete our arrangements for 1911 on this basis

### The 1911 Flanders "20"

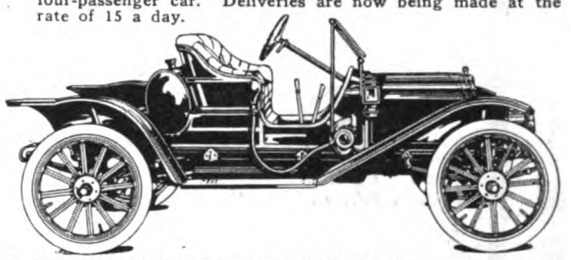
Twenty horsepower, sliding gear transmission, four-cylinder motor.



STANDARD FLANDERS "20" RUNABOUT—Price, $750. Magneto, five lamps, horn and generator included. This model seats two passengers and has open rear deck for ample luggage. Deliveries are now being made at the rate of 15 a day.



FLANDERS "20" SUBURBAN—Price, $790. Magneto, five lamps, horn and generator included. This is the popular four-passenger car. Deliveries are now being made at the rate of 15 a day.



FLANDERS "20" RACY ROADSTER—Price, $790. Magneto, five lamps, horn and generator included. Deliveries are being made at the rate of 30 a day.



NEW FLANDERS '20" COUPE—Price, $975. Magneto, five lamps, horn and generator included. Deliveries will begin on this model November, 1910.

### THE EQUIPMENT

Although the price of tires, raw material and the cost of labor has materially advanced during the past year, the E-M-F Company will continue to furnish its cars complete for the list prices noted. Bear in mind that every E-M-F "30" and Flanders "20" is equipped at the list price with a magneto, five lamps, tube horn and generator, all of which are usually listed as extras by other manufacturers.

We make our own parts and equipment and are able to eliminate a considerable source of expense to the purchaser. Otherwise it would be necessary for us to increase the prices of all our models or else to reduce the amount of equipment provided as standard.

### E-M-F BRANCHES

| | | | | | |
|---|---|---|---|---|---|
| NEW YORK, N. Y. | SACRAMENTO, CAL. | BOISE, IDAHO. | SYRACUSE, N. Y. | FARGO, N. D. | DALLAS, TEX. |
| CHICAGO, ILL. | OMAHA, NEB. | MEMPHIS, TENN. | PORTLAND, ME. | BUFFALO, N. Y. | OKLAHOMA CITY, OKLA. |
| PHILADELPHIA, PA. | PITTSBURG, PA. | ST. LOUIS, MO. | DETROIT, MICH. | PORTLAND, ORE. | SALT LAKE CITY, UTAH. |
| SAN FRANCISCO, CAL. | CLEVELAND, OHIO. | SOUTH BEND, IND. | WASHINGTON, D. C. | SEATTLE, WASH. | SIOUX FALLS, S. D. |
| BOSTON, MASS. | COLUMBUS, OHIO. | INDIANAPOLIS, IND. | MILWAUKEE, WIS. | KANSAS CITY, MO. | SPOKANE, WASH. |
| ATLANTA, GA. | LOS ANGELES, CAL. | LOUISVILLE, KY. | MINNEAPOLIS, MINN. | SAN ANTONIO, TEX. | DENVER, COL. |

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# MAXWELLS MAKE BEST TEAM SCORE IN GLIDDEN

## Model E. in Chicago Trophy class received less penalties than Glidden Trophy Winner.

# "Maxwell" Endurance

**is again convincingly established**

# HERE'S THE PROOF

## Team Scores

| CAR | | NO. OF CARS ENTERED | TOTAL PENALTIES | AVERAGE |
|---|---|---|---|---|
| **Maxwell** | | 2 | 259 | 129½ All finished |
| Nearest competitor | (Moline) | 3 | 564 | 188 " " |
| Third " | (Premier) | 2 | 899 | 449½ " " |
| Fourth " | (Chalmers) | 3 | 3,307 | 1,102⅓ one " |
| Fifth " | (Parry) | 2 | 2,240 | 1,120 none " |
| Sixth " | (Ohio) | 2 | 2,744 | 1,372 " " |
| Seventh " | (Lexington) | 2 | 3,141 | 1,570½ one " |
| Eighth " | (Cole) | 2 | 3,559 | 1,779½ none " |
| Ninth " | (Cartercar) | 3 | 6,683 | 2,227⅔ " " |

| INDIVIDUAL SCORES | TOTAL PENALTIES | |
|---|---|---|
| Westcott | 1,122 | did not finish |
| Fal-Car | 1,143 | " " " |
| Pennsylvania | 1,504 | " " " |
| Glide | 2,247 | finished |
| Cino | 2,414 | " |

WE REPEAT the old story that Maxwell Cars do not work miracles today and languish tomorrow. They serve their owners day after day, 365 days in every twelve months with unerring fidelity, giving the utmost reliability, stability and efficiency on the lowest possible cost of upkeep. Let us tell you more about them. Drop us a postal. Just say "MAIL BOOKS."

## MAXWELL-BRISCOE MOTOR CO.

**VALE STREET, TARRYTOWN, N. Y.**

**Sales Bulletin**

Sold to May 31, 1910, 29,545
Sold during June, 1910, 2,243
Maxwells in use today, 31,788

**Factories**

NEW CASTLE, IND. PROVIDENCE, R. I.
TARRYTOWN, N. Y. KINGSLAND POINT, N. Y.

*Licensed Under Selden Patent—Members A. L. A. M.*

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PIERCE-RACINE
The Car with a Famous Engine

# Announcing 1911 Models

# PIERCE-RACINE

## The Car with a Famous Engine

| | |
|---|---|
| Five-Passenger Touring - - - - | $1850 |
| Four-Passenger Suburban - - - - | 1850 |
| Four-Passenger Torpedo - - - - | 1950 |

All with Complete Equipment.

The manufacturers of the Pierce-Racine believe that the tendency of automobile buyers is strongly toward permanent cars as opposed to the other kind.

Pierce-Racine cars are built in accordance with this belief.

A comparison with cars costing between $2000 and $3000 emphatically proves the one claim made for these cars—that in general construction, body, wheels, lamps, upholstering, etc, they are to be classed only with high-grade, high-priced cars; but in respect to the most vital feature of motor car—the engine—they are radically superior to practically all other cars, regardless of price.

Pierce Engines are a marvel of quietness, flexibility and power. They give an assurance and joy in driving wholly unknown to motorists who are "hardened" to frequent engine troubles.

Pierce engines were famous the world over long before nine-tenths of the cars on the market today were thought of.

This fact is of immense importance to both the dealer and the buyer, for the engine is unquestionably the most important consideration in the purchase (or the sale) of a good car.

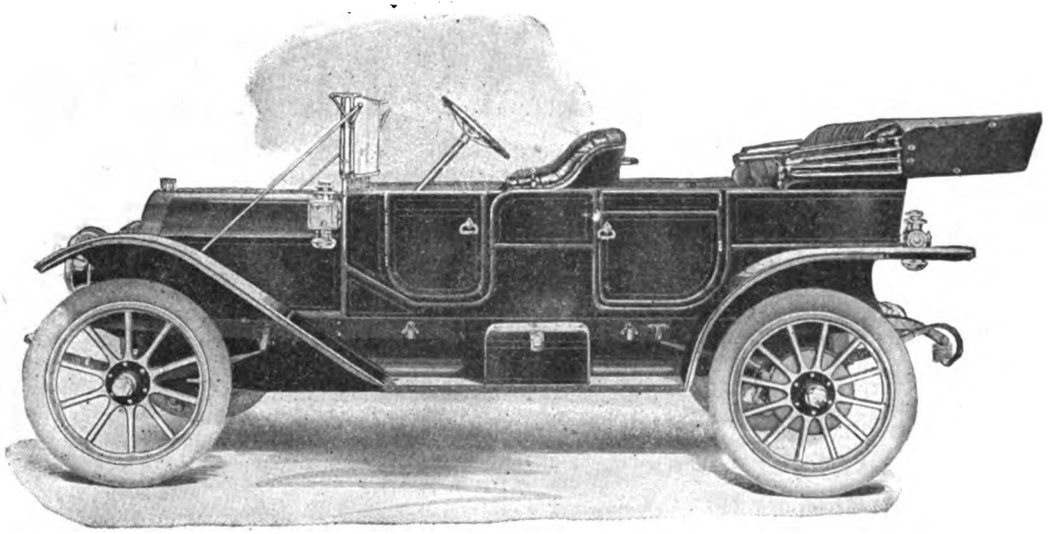
These cars have been built with but one idea in mind, namely: that they will be sold to discriminating buyers, who, if they do not buy a Pierce-Racine, will pay a much higher price for their cars.

*In every respect—size, design, upholstering, finish, etc.—Pierce-Racine cars are worthy of the most careful consideration on the part of prospective buyers of quality cars.*

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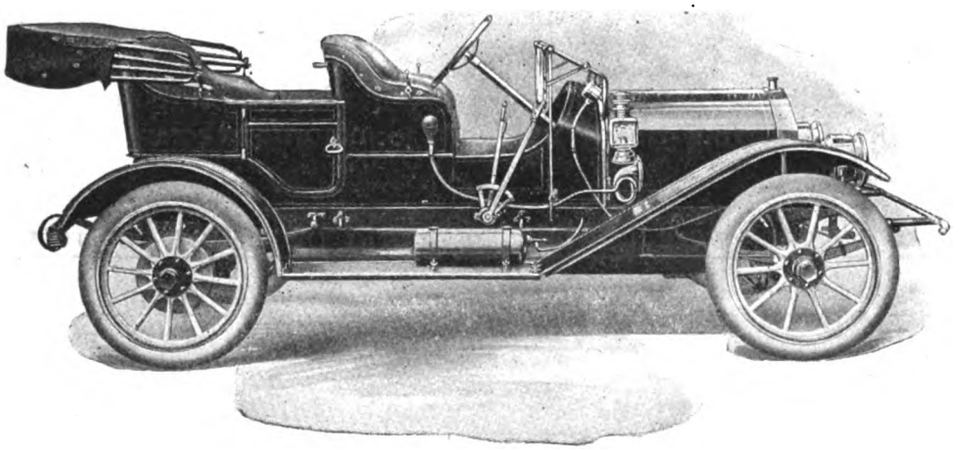
PIERCE-RACINE
The Car with a Famous Engine



Five-Passenger Touring—$1850—With Forward Door

This is unquestionably the most popular model in high-grade cars the 1911 season will produce.

Everything about it has an air of refinement—it is as far removed from cheap cars in quality and distinctiveness as it is removed from other equally high-quality cars in price.



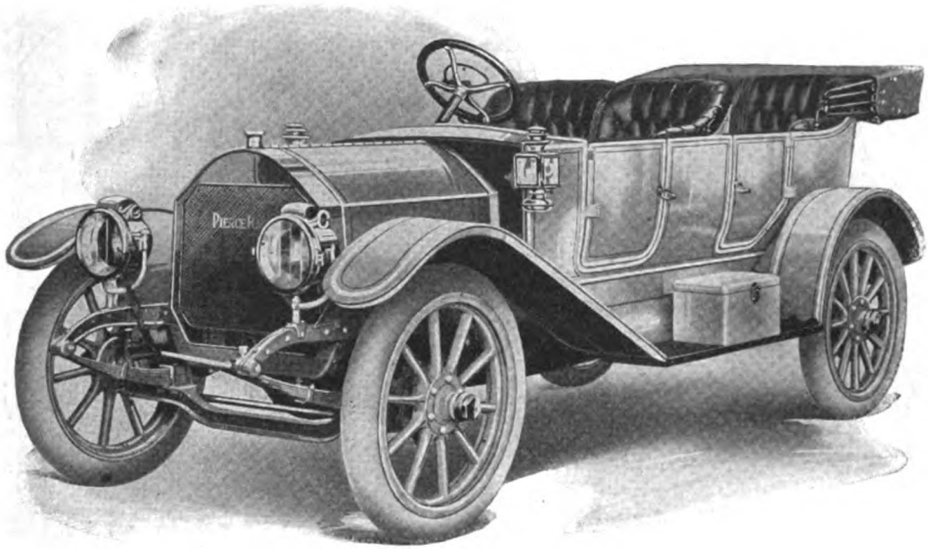
Four-Passenger Suburban—$1850

This type of car is rapidly growing in favor among those who tour. It is an ideal car for cross-country travel, with not too much weight, plenty of seat room and ample space for luggage.

—Continued on next page.

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PIERCE-RACINE
The Car with a Famous Engine



## Four-Passenger Torpedo—$1950

**The exceptionally snappy design of this "Torpedo" will appeal both to the dealer and to the buyer who is inclined toward "something different."**

**Without being in any respect freakish, this model has a style—an "individuality"—that is wholly its own. It will always be conspicuous among other cars, both for the originality of its lines and its compact, racy appearance.**

### General Specifications

BODY: Five Passenger Touring Baby Tonneau or Roadster.
WHEEL BASE: 112 inches.
TIRES: 34 x 4-inch quick detachable or clincher.
HORSEPOWER: 30.
MOTOR: Special Pierce design; 4¼ inch bore, 5 inch stroke.
CYLINDERS: Four, cast in pairs.
VALVE ARRANGEMENT: Offset on opposite side.
BRAKES: Two sets on rear hub, drums 14 inches.
WHEELS: 1½-inch spokes, artillery type.
AXLES: Front, eye-beam; rear, roller bearing.
SPRINGS: Semi-elliptic front and rear, with Temme shock absorbers.
COOLING: Water, centrifugal pump, high-grade honey-comb Radiator.
LUBRICATION: Splash-geared pump, constant level; sight feed on dash.
CARBURETOR: Stromberg.
GASOLINE CAPACITY: 18 gallons.
IGNITION: Jump spark.
CLUTCH: Multiple disc pattern, 39 plates.
TRANSMISSION: Selective; three speeds forward and one reverse.
DRIVE: Shaft and bevels, 2 universal joints.
EQUIPMENT: Complete lamp equipment, including two best-grade searchlights, glass front, English Mohair top, with dust cover and storm curtains, Prest-O-Lite tank, horn, set of tools, pump, tire repair kit, jack, etc.
FINISH: Brewster Green, hair line cream stripe with alternating cream wheels and gears if so desired.
SPEED: 8 to 50 miles on high gear.

—Continued on next page.

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# SPECIAL TO DEALERS

¶ Approximately one thousand Pierce-Racines can be apportioned to dealers who want a car of substantial refinement and known merit for the better class of trade.

¶ As many of these cars have already been ordered by present agents, it will be necessary for dealers who are interested to communicate with us by wire, phone or letter, without delay, regarding terms, territory, dates for Fall delivery, etc.

## PIERCE MOTOR COMPANY

Licensed under Selden patent.

111 22d Street Racine, Wis.

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Completely Equipped

Nothing to Buy but License Tag and Fuel

**Price $4000**



# "The 1911 Owen"

50 H. P. Motor (Long Stroke)

42-inch Wheels

120-inch Wheelbase

Weight Complete 2400 lbs.

## Note the Position of the Owen Control Lever

It is located in the CENTER of the floorboards, with the steering wheel at the LEFT SIDE.

Compare the advantages of this arrangement with other cars having left-hand drive and with the controlling levers at the LEFT side, where they must be operated with the left hand. Left-hand control means learning to do with the left hand that which comes natural with the right.

Nearly all experienced motorists are agreed that the left-hand drive is the logical drive for American cars, PROVIDING that the control levers are at the driver's right, and in the center of the floorboards,—the Owen way.

The OWEN is the first touring car having this ideal arrangement.

The control lever in the OWEN is a straight rod having a ball top that gives a most convenient hand hold. This lever works on a ball-socket joint mounted over the transmission case below, and is similar in action to the gate or H-plate. Speed changes—three forward and reverse—are affected by rocking the lever to right or left, then forward or backward to the desired gear engagement.

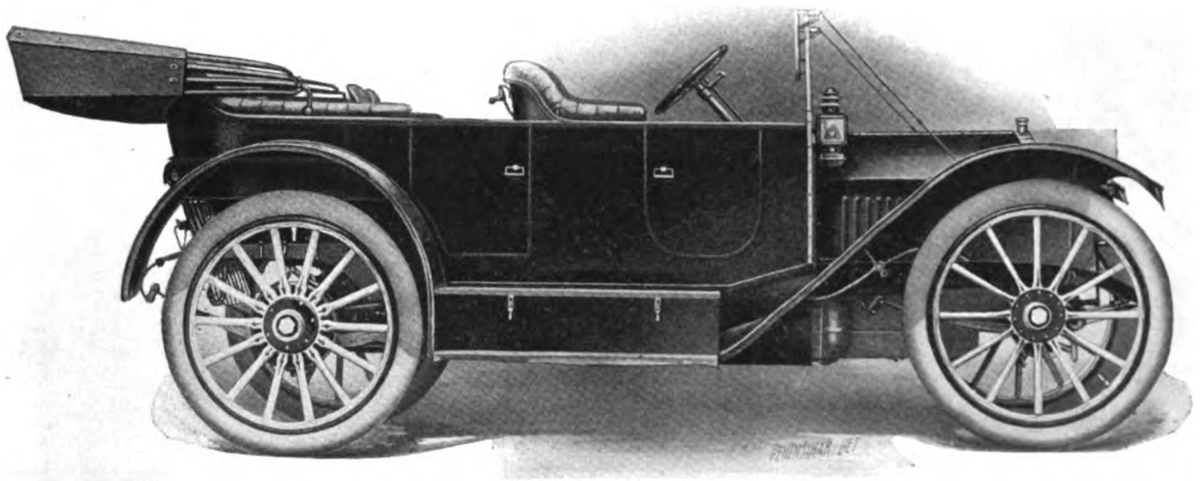
OWEN left-hand drive with right-hand control permits of convenient entry or exit for the occupants of the front seats from the curb side. No crawling over a guest's lap—no alighting in a muddy or dusty street. The driver has a clear view of the road behind in making a turn to the left or completely around. It is possible to gauge correctly the clearance of passing vehicles in crowded or narrow thoroughfares.

The big 42-inch wheels of the OWEN, the ideal spring suspension; the powerful, smooth-running, long-stroke motor, combine to make it the most comfortable car even under the roughest road conditions.

The OWEN is completely equipped—there is nothing to buy but license tag and fuel.

**To Dealers** We have a most attractive proposition for progressive dealers in unoccupied territory. Our big campaign of advertising in the national publications has made American motorists thoroughly familiar with the OWEN and is creating an army of prospective buyers. Write TODAY.

**OWEN MOTOR CAR CO., 1620 E. Grand Blvd., Detroit, Mich.**



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# The Overland — Some Overland Extravagance — The Overland

**We have told you about our economies—now let us deal with some counter extravagance. For there is many a way in which we spend more than good engineers deem necessary. Judge for yourself the advantage.**

Every important material which enters into an Overland is the best that we know for the purpose.

Many a part could be made of cheaper material, and nine times in ten it would serve equally well. But we insist on the best that any price can buy, simply as a margin of safety.

This is not true of materials used merely for show. There we employ various grades. So our cheapest cars lack some of the trappings—some of the finish—found in our costlier cars.

But every Overland, in its important parts, is as good as men know how to make it. Were you willing to pay us twice the price we could give you nothing better.

## 1,000 Inspections

We have a small army of highly paid experts who do nothing but inspect Overland parts and material. The various parts of each Overland car are subjected to more than a thousand inspections.

Each material is inspected, then each separate part. Then each combination of parts is inspected.

Then each completed car—in the hands of an expert—is given at least two road tests, over rough roads and hills.

We are told that the Overland is inspected and tested better than any other car in the world. We are told that we waste quite a neat sum per car by what is called over-exactness.

But we avoid mistakes. If an error occurs it is always corrected before the car goes to its owner. Now the Overland has a reputation—as wide as America—for being a trouble-proof car.

## Other Extremes

Each Overland crank shaft, before being attached to the engine, is revolved six thousand times in its bearings. Thus the bearings are ground into each other. They are fitted in the only way which gives them absolute smoothness.

Then each engine is run, under its own power, for 48 hours before it goes into the car. That is why an Overland never needs breaking in. It runs smoothly, easily, quietly right from the start.

We employ the direct drive and the unit transmission—all in a dust-proof case. We employ the five-bearing crank shaft used in all the costliest cars. Some economical makers use only two bearings on the lower-powered cars.

The four cylinders are all cast separately, even in our cheapest car. Some makers save much by casting them together.

So in every part. There is no skimping on materials—no economizing in the form of construction. Nor do we employ any piece work on Overlands. Every workman takes his time.

As a result, each Overland car—on the average—sells four others like it.

## Overland Prices

A 25-horsepower Overland sells this year for $1,000. It has a 102-inch wheel base—a possible speed of 50 miles an hour.

A 40-horsepower Overland, with single rumble seat, sells for $1,250. The wheel base is 112 inches. Every price includes gas lamps and magneto.

So with every model. The man who knows cars is always amazed when he sees what the Overland gives for the money.

But remember this: There are 275 makers of automobiles. And their average production in a whole year is less than the Overland's output for four days. To the average maker, the Overland facilities are utterly out of the question.

If you will mail us this coupon we will send you pictures of all the Overland cars. We will give you all of the prices—tell you all the facts. Please cut it out—now before you forget it—and mail it to us today.

We have dealers in 800 towns.

(M-65)

**The Willys-Overland Company**
**Toledo, Ohio**

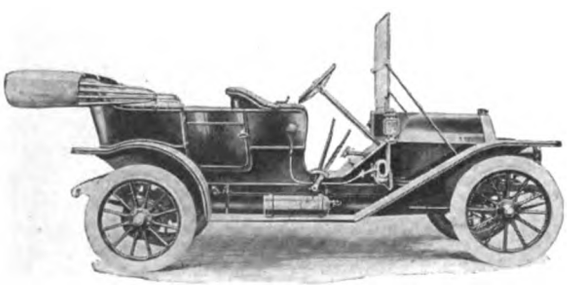
*Send me the facts about*

*Passenger Cars* ☐ *Delivery Cars* ☐

*The Marion-Overlands* ☐

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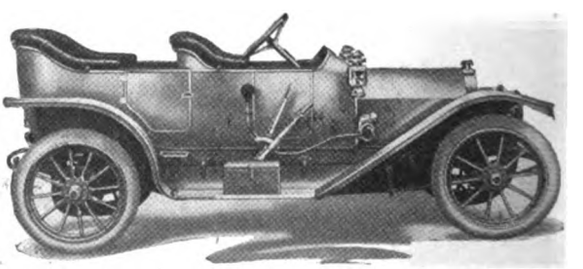
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Other Overland models cost $1,275, $1,400 and $1,500, according to style of body, etc.

The Overland

Licensed Under Selden Patent



The Marion-Overland, with touring body, costs $1,850. Also made as racing roadster, as town car and with torpedo body.

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THE MOTOR WORLD

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## GARFORD PARTS FROM STUDEBAKER

### Increases Its Line and Handles Its Own Sales—Studebaker's Large Car to be Made in Detroit.

After several years of close association, the Garford Co., Elyria, O., and the Studebaker Automobile Co., South Bend, Ind., have decided to go their separate ways. The decision was amicably reached and the parting gave no pain and left no ill will on either side.

The Garford company built the chassis of the Studebaker-Garford "40," the output of which was marketed by the Studebaker company, and the belief of the Garford people that their future welfare will be enhanced by having direction of the distribution of its product and knowledge of its ultimate handlers had not a little to do with the severance of the relations existing between the two companies. The Studebakers, it is understood, now will develop a 40 horsepower car in the E-M-F shops in Detroit, while the Garford company will greatly enlarge its line, and already has commenced to organize a sales department and agency system. One of its first moves in that direction was the selection of the Colt-Stratton Co., of New York, as metropolitan distributors. The company, of which W. L. Colt is general manager, is handling the Cole "30," which it was quick to give standing in the East, and will handle the Garford cars in connection with it, the while establishing a separate department for the Garford trucks. Mr. Colt was formerly president of the Cleveland Motor Car Co., whose cars were made in the Garford factory, and thus was brought into close acquaintance with A. L. Garford, president of the Garford company. Mr. Garford himself practically is one of the pioneers of the automobile industry. He has been identified with it for nine years, having built first the Berg and then successively the Cleveland, Rainier and Garford-Studebaker cars for the companies bearing those respective names.

Garford owns or controls 51 per cent. of the stock of the Garford Co., such shares as are held by the Studebaker interests being owned by individuals who will retain them at least for the time being.

The Garford company owns a fine large plant in Elyria to which it is adding another structure, affording 60,000 square feet of room in which steel bodies for its new cars will be made and the finishing work performed. This new Garford line will comprise a "30" at about $2,500, an improved "40" at $3,500, and a six cylinder "60" at $4,500. In addition, there will be produced a full line of commercial vehicles—a 1,000 pounds delivery wagon and, in chassis only, one, two and three-ton trucks listing at respectively $2,250, $2,850 and $3,250. As both cars and trucks and every part of them constitute a familiar and well learned story to the Garford people, they have neither a new factory to equip nor any experimenting to do, and hence will be able to enter the selling field and bid for agents under uncommon advantages.

### Chalmers Cuts a 1,000 per cent. Melon.

By declaring a stock dividend of 1,000 per cent., the Chalmers Motor Co., of Detroit, Mich., at the annual meeting of the stockholders, on Tuesday, 26th inst., raised its capitalization from $300,000 to $3,000,000, all of the increase going to stockholders as dividends in addition to a cash dividend of 30 per cent. that also was declared. With recent buildings and equipment, the company's investment in physical manufacturing property is over $1,500,000, and the old capitalization of $300,000 was regarded as disproportionately small to the actual value of the business.

### Dirnberger Becomes a Thomas Official.

M. F. Dirnberger, Jr., has been elected secretary and treasurer of the E. R. Thomas Motor Co., of Buffalo, N. Y. He is one of Buffalo's prominent attorneys and is well known in local business circles.

## MUST TELL TIRE TRADE SECRETS

### Bennett and Gilbert Defeated in their Resistance to Examination—Moto Bloc Pushes the Inquiry.

In the first round of the fight of the Moto Bloc Import Co., of New York City, against the tire manufacturers who through the medium of the so-called Dealers' Protective Association are trying to curb price cutting on tires, the Moto Bloc company has proved the victor. Because of this fact it will be necessary for Joseph M. Gilbert, of the Continental Caoutchouc Co., and L. W. Bennett, the manager of the Dealers' Protective Association, to submit to an examination as to the inside workings of the association.

As explained at the time, Leon D. Kaufman, president of the Moto Bloc company, through his attorneys, Nims & Frazer, has employed that part of the New York code that permits what is known as the examination of a party before trial, in order that in bringing suit the complainant may have information necessary for him to draw his complaint in proper form. Kaufman contends that the Dealers' Protective Association, which is supported by tire makers, including Diamond, Hartford, Goodrich, Continental, Morgan & Wright, G & J and Fisk, is an illegal combination restraining trade, and that it is guilty of unfair blacklisting methods in making lists of dealers to whom the tire companies shall not sell.

The examination which Kaufman has asked for is to endeavor to compel Gilbert and Bennett to disclose the exact nature of the Association and to reveal its minutes and other records and those of the tire companies who are fathering it. He also wants to know what agreement has been made by the manufacturers "acting in concert in a scheme to concentrate the business in the hands of a few dealers," and to find out who names the firms that are to get tires at wholesale prices and those who are

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compelled to pay retail prices if they want to buy.

As president of the Moto Bloc company, Kaufman obtained an order from Justice Giegerich for the examination, but as a counter move Bennett and Gilbert applied to Supreme Court Justice Ford to have the order vacated, as improper. The matter was argued before Ford on July 6th, but it was not until the 22nd inst. that he gave his decision. Justice Ford has overruled Bennett and Gilbert in their motion, and the order for the examination still stands. The Moto Bloc company is endeavoring to have the examination set for August 2, but Judge Ford has not indicated whether or not it will take place on that date. A. H. Kasner, proprietor of a New York tire house which has been cut off from obtaining wholesale prices and who has taken steps to have the Federal Department of Justice prosecute the tire makers for restraint of trade, has announced his intention of having a representative at the examination, for the purpose of getting facts that will assist him in his retaliatory program.

### National-Acme to Build New Factory.

The National Acme Mfg. Co., of Cleveland, O., manufacturing machine tools for the automobile industry, has made application for a permit to build a $30,000 four story factory at Stanton avenue, southeast, and the C. & P. railway track. The factory will have 20,000 square feet of floor space.

### Alpena Completes Its Organization.

The Alpena Motor Car Co., of Alpena. Mich., in which some Mt. Clemens money also is interested, has completed its organization and is to make a $1,450 car styled the Alpena Flyer. The officers of the company are D. D. Hanover, president; William Krebs, vice-president, and W. B. Robertson, secretary and treasurer.

### Stafford Moves to Larger Plant.

The Stafford Motor Car Co., of Kansas City, Mo., has moved from its old plant at 111 West Eighteenth street to the factory formerly occupied by the Kansas City Motor Car Co., at Sheffield. New machinery equipment to the extent of $50,000 has been added.

### Pulcher Leaves Oakland for Bailey.

Martin L. Pulcher has resigned as purchasing agent and secretary of the Oakland Motor Car Co., of Pontiac, Mich. He has become general manager of the Bailey Motor Truck Co., of Detroit, Mich.

### City Carriage Takes up Automobiles.

The City Carriage Works, of Fort Wayne, Ind., has decided to engage in the manufacture of automobiles. Its output is to include trucks, delivery wagons, buses and ambulances.

## CROXTON-KEETON CREDITORS ACT

### Form a Committee to Straighten Out Its Affairs—Liabilities $300,000—Seek to Avoid Forcible Liquidation.

At the request of a large majority of the creditors, the Croxton-Keeton Motor Co., of Massillon, O., has been placed in the hands of a creditors' committee, for reorganization, re-financing or liquidation of its affairs. The company owes more than $300,000. The committee indicates that the assets may equal this amount provided they can be conserved as a going business, and that if it be possible to obtain only enough money to manufacture the goods for which parts already are on hand, the creditors might pull out something between 50 and 60 cents on the dollar. Forcible liquidation at present, it is estimated, would yield about a 10 per cent. dividend on the debts.

The committee which has undertaken to act for the creditors consists of: Isaac Kinsey, president of the Kinsey Mfg. Co., Toledo, O.; H. J. Mallory, Weston-Mott Co., Flint, Mich.; Christian Girl, president of the Perfection Spring Co., Cleveland, O.; L. A. Loichot, president of the First National Bank, Canton, O.; W. F. Ricks, cashier of the Merchants' National Bank, Massillon, O. The depository for claims is the Citizens' Savings and Trust Co., of Cleveland, O., while M. B. & H. H. Johnson, 1009 American Trust building, Cleveland, are the counsel for the committee.

### Conceal $10 Damage by $75,000 Fire.

To conceal the fact that their carelessness had resulted in about $10 damage to a boiler tube, two employes of the Camden Motor Co.'s garage, in Camden, N. J., burned the garage and caused a loss estimated at $75,000, according to charges brought against them by the Camden police. The fire, which took place on March 15th, consumed 29 automobiles as well as the building. Simon Spence, a negro, and Albert Hildreth, a white man, are the men who are accused, and after a hearing before the recorder they have been committed to jail in default of $3,000 bail each. A detective testified that Spence told him they thought that burning the building would be the easiest way out of their difficulty and would save them from having to pay for the boiler tube.

### Bergdoll Begins Manufacturing Operations.

After an embryonic period of some months, the Louis J. Bergdoll Motor Co., of Philadelphia, Pa., has commenced active life and has taken possession of the new factory which has been built for it at 31st and Dauphin streets, where it will produce Bergdoll cars. The president and managing head of the concern, Louis J. Bergdoll, a millionaire who has gained some fame in automobile circles as a race driver, has had the Philadelphia agency for a number of cars, and is familiar with the problems of the trade. E. C. Johnson, the vice-president, formerly was sales manager of the Packard branch in Philadelphia, and will handle the sales end. Charles A. Bergdoll is treasurer and Philip Malickson secretary. The latter will have general supervision of the mechanical and manufacturing side of the enterprise.

### Dow Heads an Electric Enterprise.

The Electric Truck Co., with Alexander Dow as president, has been formed in Detroit, Mich., not only to handle electric trucks of from one-half to five tons capacity, but also to provide a garage and operating system that will permit an economical use of electric commercial vehicles. The other officers of the company are S. M. Sheridan, vice-president; S. C. Mumford, treasurer, and J. W. Brennan, secretary and general manager.

### Studebaker Branch for Los Angeles.

A branch for Studebaker, E-M-F and Flanders cars is to be established in Los Angeles, Cal., by the Studebaker Automobile Co., of South Bend, Ind. Joseph Ollier, who has been representing the Flanders car in Los Angeles, will be the manager, and will handle the distribution for Southern California. A large warehouse will be erected for the branch.

### Detroit Office for Ohio Tube.

The Ohio Seamless Tube Co., of Shelby, O., making cold drawn seamless tubing, has opened an office in Detroit, Mich., for the purpose of better serving the Michigan automobile trade. The office is at 913 Ford building, and will be under the direction of Lloyd Brown.

### Brandt Goes with United States Motor.

E. H. Brandt, president and general manager of the Rambler Automobile Co. of New York, the metropolitan representatives of the Thomas B. Jeffery Co., of Kenosha, Wis., has resigned. He is to become identified with the United States Motor Co.

### Brady Sells Out Chalmers Interest.

James J. Brady, former second vice-president and factory head of the Chalmers Motor Co., of Detroit, Mich., has disposed of his holdings in the company to Hugh Chalmers, the president. Brady resigned from the company last February.

### Morse Buried at Wallingford.

G. W. Morse, president of the Parish & Bingham Co., of Cleveland, Ohio, who died in that city after a long period of illness, was buried in Wallingford, Conn., on Wednesday of last week. He had been in poor health for a year or more.

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## SERVICE STATIONS IN SIX CITIES

**Comprehensive Plan for Delivering Chalmers Replacement Parts within 24 Hours—For Dealers and Owners.**

Pointing to the recognition which manufacturers of cars are giving to the replacement and service-to-owners features of the business, the Chalmers Motor Co., of Detroit, Mich., is making ready to establish what are to be known as "auxiliary repair stations" in six of the most important cities of the country. These stations are an outgrowth of the "service department" which the company has established and which is under the direct supervision of C. C. Hildebrand, formerly sales manager of the Stevens-Duryea company, and now the assistant general manager of the Chalmers company.

The cities selected for the introduction of the plan include New York, Kansas City, Denver, Minneapolis, Atlanta and San Francisco. The stations will be in charge of representatives from the factory, and the object in their establishment is the supplying of repair parts within 24 hours of receiving the order. The plan does not involve the establishment of retail selling branches or the taking over of agencies from dealers at present handling the cars, but relates solely to the "service" or repair and replacement end of the business.

It is explained that the dealers throughout the country will continue to carry the same amount of repair parts for the company's cars that they now are carrying, but that the repair stations will supplement the dealers' repair stock, and that the repair stations will furnish such parts as the dealers do not ordinarily carry and which heretofore they have had to order from the factory. It is aimed to supply any dealer or owner with a needed part within a day's time. The speed idea also is to be carried out to the extent that all telegrams and special delivery letters to the stations will be replied to on the day they are received, and orders for repair parts at the factory have been given an imperative right of way over stock for the factory for building cars.

### Clevelanders to Build Motor Trucks

The Cleveland Motor Truck Mfg. Co. has been formed in Cleveland, O., with $250,000 capital, to build commercial vehicles embodying what is known as the McGeorge wheels, permitting driving and steering of both front and rear wheels. The wheel is patented by John McGeorge, of the Cleveland Engineering Co. The company proposes to make eight models of vehicle, four of which will be combination gasolene-electric, and the capacities are to range from 1,000 pounds to seven tons. The officers of the concern are H. W. Woodward, president; R. H. Sharp, vice-president and general manager; W. M. Hager, secretary, and A. W. Johnston, treasurer, all of Cleveland. These with Dr. Edwin Leonard, Jr., of New York City, constitute the board of directors.

### Nuckols Now Columbia's President.

Henry M. Nuckols has been made president of the Columbia Motor Car Co., of Hartford, Conn., being advanced from the vice-presidency by a vote of the board of directors. At the time the receivers were appointed for the Electric Vehicle Co. he was secretary and treasurer of the company, and under the receivership was the active manager in addition to being one of the two receivers. Since the concern's reorganization as the Columbia Motor Car Co. and its acquirement by the United States Motor Co. he has been vice-president and general manager. In the new office he succeeds Herbert Lloyd, of Philadelphia.

### Goodrich to Add $10,000,000 Capital.

For the purpose of doubling the capital stock of the B. F. Goodrich Co., Akron, O., from $10,000,000 to $20,000,000, a special meeting of the stockholders has been called for August 24th. It is understood that half of the new $10,000,000 issue is intended as a bonus to present stockholders in the form of stock dividend, while the remaining $5,000,000 will be for subsequent sale. The proceeds of the latter will be used to pay for additions that are being made and others that are contemplated, and to provide ready cash capital so that borrowing will be unnecessary.

### Hollander is Arrested in Naples.

After having fled the country by reason of the discovery that he had been defrauding the United States government in connection with his brokerage services in importing automobiles, Alexander Hollander, head of the customs brokerage firm of Alexander Hollander & Co., New York City, was arrested in Naples on the 20th inst. His scheme was to shave differences in duties by submitting false invoices and certificates of appraisement.

### Argo Will Build Electrics in Saginaw.

Saginaw, Mich., is to have a manufactory of electric automobiles, the Argo Electric Vehicle Co. having been formed in that city, incorporated with $200,000 capitalization. The company will occupy a factory which is to be vacated by the Sommers Match Co. The principal stockholders are Theodore Huss, Fred Buck, Benton Hatchett and Otto Shupp, of Saginaw, and A. M. Marshall, of Duluth.

### Goodyear Opens a Seattle Branch.

The Goodyear Tire & Rubber Co., of Akron, Ohio, has opened a branch in Seattle, Wash. It is located at 1532 Broadway.

## NEW CHASSIS IN MAXWELL'S LINE

**Models Offer a Range from $600 to $1,600—Torpedos Providing for Two, Four or Six Passengers.**

With its line considerably amplified in the way of bodies and with one new chassis introduced to extend its scope, the Maxwell-Briscoe Motor Co., Tarrytown, N. Y., by the announcement of its new models, added one more name to the list of manufacturers who have espoused the torpedo style of carriagework and also the rationalized type of touring body which is now furnished with doors to both front and rear seats. The new line will comprise two passenger runabouts in prices ranging from $600 to $900, touring cars from $1,100 to $1,575, and torpedos with straight line effects and arranged to seat two, four and five passengers, which range in price from $1,100 to $1,600.

The new chassis model will be of 25 horsepower rating, with a four-cylinder engine of 4 x 4 inch dimensions. It is designated as Model "I," and equipped as a touring car with four door body is listed at $1,100, and is a very attractive offering in its class. The other chassis, in order of power rating, are the 14 horsepower twin-cylinder opposed, and the 22 and 30 horsepower models, the latter having 4¼ x 4¼ inch cylinders.

Models "E-A" and "G-A," the latter in both touring car and roadster forms, are the cars which are presented in torpedo form. They are equipped with the 30 horsepower motor and sell for $1,600 each. The roadster is equipped with demountable rims and extra tire carriers and with a gas tank mounted on the rear deck between the seats. The four passenger detachable tonneau touring car, known as model "G-II," also a 30 horsepower model, is effectively drawn to secure the straight line effect and is listed at $1,575. The five passenger touring car "E-II" sells for $1,500. The "Q-II" model, so-called, may be had either as a runabout for two persons or with rumble or surrey seat additions. As a runabout it sells for $900.

In revising the body designs for the new series of cars a new color scheme has been adopted in addition to numerous minor features of a utilitarian nature. The new Maxwells, therefore, will be distinguished by dark blue bodies and cream running gear, with options on the shade of blue in the "Q-II" models and of dark red in the case of the 30 horsepower four passenger detachable tonneau touring car. As was the case with their predecessors, all new models will be equipped with magneto ignition in addition to other desirable fittings. The "perfected Maxwell chassis" is of uniform design in most respects.

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## THE WEEK'S INCORPORATIONS.

Jackson, Ohio—Jackson Spoke and Rim Co., under Ohio laws, with $3,000 capital. Corporators—John Robbins and others.

Chicago, Ill.—Atlas Auto Supply Co., under Illinois laws, with $4,000 capital. Corporators—James Flett, E. R. Styles and others.

Victoria, Tex.—Overland Garage Co., under Texas laws, with $3,000 capital. Corporators—John Welder, Jr., R. H. Welder, Paul Plummer.

Canton, Ohio—Diebold Motor Car Co., under Ohio laws, with $20,000; to deal in automobiles. Corporators—R. J. Diebold, W. R. Myers, D. L. Quinn.

Louisville, Ky.—Broadway Auto Co., under Kentucky laws, with $10,000 capital. Corporators—Owen S. Mottler, Edward Haag and Walter E. Huffaker.

Enid, Okla.—Thomas Motor Car Polish Co., under Oklahoma laws, with $1,000 capital. Corporators—F. J. Gentry, William French, R. W. and M. L. Thomas.

Kansas City, Mo.—Chalmers Motor Co., under Missouri laws, with $25,000 capital; to deal in automobiles. Corporators—John A. Nelson, W. S. Keeler, John Pirie.

Chicago, Ill.—Atlas Auto Supply Co., under Illinois laws, with $2,500 capital; to deal in automobile supplies. Corporators—J. S. Day, H. L. Page, G. Hamburger.

Marion, Ind.—Fudge Bros. Mfg. Co., under Indiana laws, with $25,000 capital; to manufacture automobile tires. Corporators—John W., Leroy M. and Lewis M. Fudge.

St. Louis, Mo.—Lane-Lynch Motor Co., under Missouri laws, with $15,000 capital; to deal in automobiles. Corporators—Harry P. Lynch, John A. Johansen, Geo. E. Lane.

Mansfield, Ohio—Forth Motor Car Co., under Ohio laws, with $200,000 capital. Corporators—C. T. Ashbrook, W. M. Hahn, C. Hoffman, S. J. Colwell and W. H. Shryock.

Cleveland, Ohio—Hupp Motor Sales Co., under Ohio laws, with $15,000 capital. Corporators—James A. Farrell, W. J. Coughlin, Thomas Coughlin, A. C. Waid and W. J. Dawley.

Fitchburg, Mass.—Bickford Auto Co., under Massachusetts laws, with $10,000 capital; taxicab and automobile business. Corporators—O. E. Bickford, R. D. Lyon and E. C. Ford.

Oshkosh, Wis.—McKone Motor & Tire Repair Co., under Wisconsin laws, with $10,000 capital; to operate a garage. Corporators—L. J. McKone, H. J. Ziebell, R. G. Johnson.

Chicago, Ill.—Lake View Garage Co., under Illinois laws, with $10,000 capital; general automobile business. Corporators—John W. Benfield, Felix C. Hartung and A. H. Barrett.

Middletown, N. Y.—Micks-Wilkin Transmission Co., under New York laws, with $5,000 capital; to deal in automobiles, etc. Corporators—W. W. Micks, J. A. Wilkin, John G. Heinle.

Chicago, Ill.—Auto Renewal Co., under Illinois laws, with $2,500 capital; to manufacture automobiles and parts for same. Corporators—J. S. McClellan, Leo Klein, Jerome J. Cermak.

Louisville, Ky.—Kentucky Automobile College, under Kentucky laws, with $5,000 capital. Corporators—Charles H. and Jesse Gant, Samuel and Nellie Glick, Clarence F. Ott and A. S. Beyer.

Chicago, Ill.—Peerless Motor Car Co., under Illinois laws, with $60,000 capital; to do general manufacturing and contracting business. Corporators—Louis H. Hart, J. Smith, D. T. McNabb.

Memphis, Tenn.—E-M-F Memphis Co., under Tennessee laws with $25,000 capital. Corporators—Walter E. Flanders, Robert M. Brownson, B. W. Twyman, Ernest L. Jacoby and Paul Smith.

Edgewater, N. J.—Guarantee Rubber Tire Co., under New Jersey laws, with $10,000 capital; to manufacture automobile tires, etc. Corporators—E. J. Forhan, H. F. Martin and H. P. Hones.

Providence, R. I.—Union Motor Car Co. of Rhode Island, under Rhode Island laws, with $10,000 capital; general automobile business. Corporators—Rogers Case, Willard Sweet and Abbot Phillips.

Chicago, Ill.—American Automobile Stuffing Box Co., under Illinois laws with $100,000 capital; stuffing boxes and packing. Corporators—Calvin and Nellie Tichenor, Edward M. Baldwin.

Leominster, Mass.—Leominster Garage and Auto Co., under Massachusetts laws, with $5,000 capital; to do general garage business. Corporators—L. M. Stutz, M. Falk, Bessie Falk, J. W. Healey.

Meridian, Miss.—Meridian Auto Co., under Mississippi laws, with $10,000 capital; general automobile business. Corporators—Sam Meyer, J. T. Russell, Walter G. Hodges, J. W. Bostick and others.

Oklahoma City, Okla.—E. M. F. Oklahoma City Co., under Oklahoma laws, with $25,000 capital; to deal in automobiles and supplies. Corporators—Chas. M. Barber, W. E. Flanders, R. E. Brownson.

Newark, N. J.—Simplex Sales Co., under New Jersey laws, with $10,000 capital; to manufacture automobiles, etc. Corporators—George B. Riley, Jersey City; Moses Ritter, Rahway; E. R. Holmes, Newark.

Cleveland, Ohio—J. R. Whiting Auto Sales Co., under Ohio laws, with $10,000 capital; to deal in automobiles. Corporators—J. R. Whiting, W. C. Sell, F. Irene Burke, C. J. Burke, W. H. Kemmerling.

Omaha, Neb.—Omaha Motor Car Co. under Nebraska laws, with $200,000 capital; to manufacture and sell automobiles. Corporators—G. H. Downs, W. S. Stryker, H. M. Rigley, W. G. Wallace, R. M. Homan.

Oklahoma City, Okla.—Farmers' Motor Wagon & Plow Co., under Oklahoma laws, with $100,000 capital; to manufacture industrial motor vehicles. Corporators—Colfax Molton, F. B. Johnson, H. D. East.

Chicago, Ill.—White Motor Car Co., under Illinois laws, with $100,000 capital; to deal in automobiles, supplies, parts and kindred articles. Corporators—James E. Plew, Robert M. Cutting and Charles W. Luttrell.

Newark, N. J.—Commercial Maintenance & Motor Co., under New Jersey laws, with $100,000 capital; to operate and rent automobiles and do general garage work. Corporators—R. O'Gorman, S. A. Halsey, G. D. O'Gorman.

New York City, N. Y.—Lafayette Mfg. Co., under New York laws, with $30,000 capital; to manufacture trunks and appliances for automobiles and bicycles. Corporators—George M. Shotwell, Bernard A. Alperin, B. Gleason.

Lewiston, Me.—Combination Tail Light and Illuminated Automobile Number Corporation, under Maine laws, with $150,000 capital; to manufacture and sell patented automobile tail lights and other appliances. Corporator—J. A. Patron.

Charleston, W. Va.—Kanawha Auto Cab Co., under West Virginia laws, with $5,000 capital; to operate automobiles for hire. Corporators—William T. George, J. B. Dilworth, Philippi; William B. Mathews, C. E. Robinson, F. C. Major, Charleston.

### Kelsey to Make Three-Wheel Cars.

The C. W. Kelsey Mfg. Co., of Hartford, Conn., organized by C. W. Kelsey, formerly of the Maxwell-Briscoe Motor Co., and which had planned to make the Spartan car, is to turn to the manufacture of a small three-wheel car which is to be known as the Motorette, and which, according to Kelsey, "comes between an automobile and a motorcycle, and may be called the ultra-refinement of the motorcycle." It is to sell for about $330 and will seat two persons, side by side. The company has completed its organization and has leased a factory on Market street, formerly occupied by the Cheney Brothers, silk manufacturers. It has a capitalization of $250,000, and is headed by Kelsey as president. The vice-president is W. D. Disston, of the firm of Disston & Sons, Philadelphia, manufacturers of saws. G. M. Robinson, of New York City, is secretary, and M. Kelsey treasurer. F. S. Hyatt, who recently resigned as purchasing agent of the Columbia Motor Car Co., is purchasing agent of the new company, and G. F. Kuhn, who was an engineer for the Maxwell-Briscoe company, is the engineer and factory manager of the concern.

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## IN THE RETAIL WORLD.

R. J. Thompson, of Waterloo, Ia., has opened a repair and supply business in his home town. He will specialize in vulcanizing and painting.

William Gabler is building a two story garage in Philadelphia, Pa., at the corner of 27th and Sergeant streets. The building will be 20 x 90 feet and cost $4,000.

W. C. Marsh, manager of the American Motor Co., Boston, Mass., has secured the agency for the Paige-Detroit roadster. He will exhibit it at 173 Huntington avenue.

The garage business of Thorpe & Wood, Darien, Wis., has been dissolved. E. H. Wood bought out the interest of his partner and will continue the business alone.

Under the style the Frank Fleckling Automobile Supply Co. a new accessory house has been established in Washington, D. C. It will be located at 1112 14th street, northwest.

Frank Jungjohann has retired from the Iowa Auto & Tire Co., Davenport, Ia., which leaves the present firm composed of from the main stock-in-trade of the concern.

A. R. Carney, F. Richardson and J. H. Crosett are the owners of a new garage which is in the course of erection at Exeter, Cal. The building is of reinforced concrete.

A. M. Phillips and others are interested in a new garage which is being built on Princess street, St. John, N. B. The structure will be 103 x 42 feet, of brick and two stories high.

Jesse S. Draper, who has been acting as manager for the New York branch of the Mora company, of Newark, N. J., has resigned. He will take up the sale of Hudson cars in the metropolitan district.

The Mercer County Automobile Co. is the name of a new concern which has opened up in Bluefield, W. Va. General garage and repair work is to be done by the company at its garage in Bluefield avenue.

Eric J. Gustafson just has opened a garage and repair shop in the old church on Court street, Rockford, Ill., which has been rebuilt for this purpose. The new garage has cement floors and will afford room enough for a dozen cars.

The Excelsior Garage at Kokomo, Ind., was destroyed by fire on Monday last, and damage of over $3,000 resulted. The flames were started by the breaking off of a burner on the brazer, which was being operated in the basement of the garage.

Fire starting from crossed electric wires last week destroyed the garages of the Gotschalk Motor Car Co. and the Spaulding Automobile Co., in Aberdeen, S. D. The damage is estimated at over $75,000, with only a nominal insurance.

R. W. and F. W. Northcutt, agents for Hudson and Chalmers cars in Atlanta, Ga., have joined forces with John E. Smith, the agent for the Pierce-Arrow Co., under the style Northcutt, Smith & Co. Their new salesrooms will be located at 116 Auburn avenue.

The Newberry Auto Livery Co. is the style of a new concern which has opened a garage and renting department in Chicago, Ill. The new structure, built especially for them, measures 81 x 98 feet and cost $15,000. It is located on Paulina street, near 12th street.

John C. Donohue, contractor and owner of the Jefferson Market and Auditorium building, Perth Amboy, N. J., has organized the Central Jersey Garage, and will manage it himself. The new business is to be established in his market building on New Brunswick avenue.

The Babcock Garage, located at 6404-18 Euclid avenue, Cleveland, Ohio, has been leased by the Western Reserve Motor Co., agents for the Pierce-Arrow, Everitt "30" and Hewitt trucks. C. J. Whipple, the manager of the Western Reserve company, has taken over the agency for the Babcock electrics.

The Overland Auto Co., of 1516 Broadway, Denver, Col., has opened up an additional and much larger salesroom at 1547 Lincoln street, where it will display Winton, Apperson, Overland and Marion cars. The old salesroom henceforth will be devoted exclusively to the sale of Baker electrics, which also are handled by this company.

The Thomas Automobile Co., the Winton agents in Louisville, Ky., have leased the garage building at Second and Guthrie streets and are making extensive alterations. The Thomas company's former location at 916 Third street has been taken by the Radcliff Motor Car Co., which recently was organized to handle the Stevens-Duryea.

Louisville, Ky., has added another garage and salesroom to its "automobile row" on Third avenue. The Yager Motor Car Co. is the name of the newcomer, and it will occupy the new brick and reinforced concrete structure between Breckenbridge and Kentucky streets. Peerless, Pierce-Racine and Columbus electric cars are handled by the concern, of which R. T. Yager is manager.

The garage business of the Cook & Stoddard Co., of 22nd and P streets, northwest, Washington, D. C., has been purchased by J. J. Bartram, who previously bought the Atlas garage at 1206 New Hampshire avenue, northwest. The building at 22nd and P streets will be turned into a riding academy. The Cook & Stoddard Co. intends to continue in the sales business and has taken new quarters on H street.

The firm of Hunter & Osen, San Francisco, Cal., has been reorganized. A. E. Hunter takes over the retail end of the Mitchell business in San Francisco under the style the A. E. Hunter Auto Co., while the old firm, under the name Osen & Hunter Auto Co., takes entire charge of the wholesale part. O. C. McFarland will be at the head of the wholesale department in which Hunter still retains his controlling interest.

The Great Northern Implement Co., Minneapolis, Minn., whose display room and offices burned down two months ago, will erect a new seven-story structure on the site of the old building, at Third street and Seventh avenue south, taking in addition the site of the Rock Island Implement Co.'s warehouse, which was destroyed in the same fire. The new structure will be 154 x 120 feet, of reinforced concrete, and is to be made strictly fireproof.

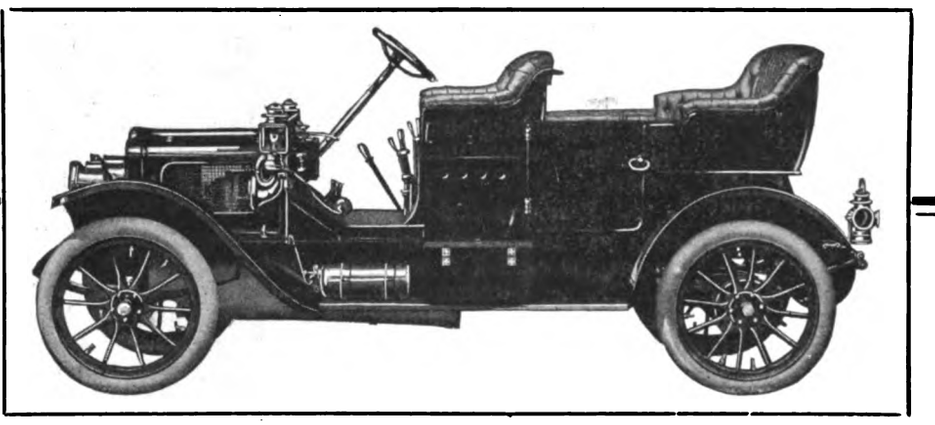
Heralded as the "finest electric garage in the world," the Bartlett Garages, Inc., with 2¼ acres of floor space, soon will be ready for business on Market street, Philadelphia, Pa. The structure covers a plot 180 x 220 feet, fronts on four streets, and will accommodate more than 200 cars. The upper floors will be occupied by a number of accessories and supplies stores, while in the part of the ground floor facing on Market street electric vehicles will be exhibited.

A petition in voluntary bankruptcy has been filed by Charles R. McClellan, a distributor of automobiles, 1777 Broadway, New York City, with liabilities $1,686 and nominal assets $2,225, consisting chiefly of 20 shares of stock in the Monitor Automobile Co., of Janesville, Wis., which concern is a creditor for $960. Dwight Holbrook, of Hartford, Conn., with a claim for $162, and George R. McClellan, of Burnside, Conn., $250, are among ten other creditors named.

Threatening for a time to destroy the entire "automobile row" in Portland, Ore., a conflagration swept over a large area of the city, causing nearly half a million dollars damage. Among the losers were the Brush Auto Co., with $12,000 and no insurance; the United Carriage Co., with $15,000, partly covered by insurance, and the Fashion Stables and Garage, with $20,000 and no insurance. The fire which razed seven city blocks is said to have started in the Fashion Stables garage.

Said to be the best lighted garage in the country, the new Philadelphia home of the Winton Six, just has been opened for business, at 246 North Broad street. The structure is fireproof, with a main show room 38 x 75 feet, a garage 78 x 110 feet, and a repair shop 40 x 80 feet. Scarcely any wood is used in the building. The entire front of the structure is of plate glass, with metal sashes, steel lockers for the employees, baths, retiring rooms and many other conveniences are provided on the second floor. Nernst electric lamps are used at night.

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### The A. A. A. and Its Backbone.

On its abundant and repeated proof that it at last possesses a backbone—a real one—The Motor World felicitates the American Automobile Association. It was a long time acquiring it, but it is such a bully backbone that many sins of the jellyfish days of the A. A. A. can be forgiven. The organization finally has found the way to deserve respect and to command it.

### The Effects of "Forcing the Season."

Despite conservative efforts to stamp out the practice of conducting the industry along the lines of a season business it is apparent that but little headway has been made. Any producer who leans as hard upon the efforts of his publicity man as does the average automobile builder is strongly inclined to make capital of the smallest item which is capable of construction to his seeming advantage. So while a number of manufacturers have ceased to rate their models by years, and while the tendency of the market has been to break down the barrier which season designations erect, the general trend of newspaper comment and of a large proportion of the automobile advertising matter has fostered the idea that cars are built and sold in yearly allotments.

This sentiment naturally must be a sore affliction on the dealer, and it is something of an imposition on the public. The motorist who buys a "1910" car in the middle of June or July and learns a week or two later that by waiting a fortnight he might have had a "1911" car of the same make, which, he reads, has more power, or an improved body, or more and better features than the car he actually bought, is apt to feel that he has been "stung," and not wholly without reason. His feelings are not likely to increase his regard for the manufacturer or dealer who sold him an out-of-date or less valuable car. The dealer who happens to have one or more cars of the previous model on hand when the new series arrives also suffers. He either must take advantage of uninformed purchasers or dispose of the cars by sacrificing some of his profit by a direct cut in price or by offering some no less appealing and effectual form of inducement to the purchaser.

The broad effect of the system is to promote ill will and bad feeling and to condense the buying of cars into a few months, to create a selling season. To fill orders which come in with a season rush, factories must be operated months in advance of delivery, and manufacturers of parts and equipment and others who supply them must speculate on quantity and the taste of the public in the matter of styles and content themselves with long credits or heavy capitalization on the output, or else resort must be had to overtime. Banking institutions thrive on such policies and the building and machinery trades enjoy some benefit from them, since they necessitate the building of huge factories and warehouses.

But the industry as a whole must be the loser under such circumstances, and the vague attempts which have been made to eliminate the nominal season effects, but which really have resulted only in advancing the selling season for certain makers and generally confusing the public as to its calendar, have not been sufficiently concerted to bring about the desired results.

If it be held that competition requires that announcements of new models be made in mid-summer, the sooner its full consequences are realized, the better it will be for all concerned. For the most lasting and most general best results it were better that all announcements of new goods be withheld until September, at least.

### The Tables Turned on New Jersey.

As August 1st approaches, wailing and gnashing of teeth is increasing in the state of New Jersey. For on that day the new law in New York goes into effect and the motorists of the Mosquito State are beginning to realize that there soon will be something akin to real substance in the old joke regarding New Jersey being a foreign country. After August 1st, it matters not in which direction they may turn, they will be treated as "outlanders;" they must "stand and deliver" before they dare cross their state lines. The New York law closes their last avenue of escape. It completes their "marooning."

However abhorrent may be the idea that freedom of travel between states comprising one nation should be a matter of barter and sale or reciprocity, the fact that long delayed retributive justice finally has overtaken New Jersey is affording a sense of keen satisfaction that almost is universal; it is shared even by some of the liberal-minded Jerseymen who have opposed the miserable "hold-up" system instituted by Senator "Joe" Frelinghuysen. Due to his fine scruples and adroit tactics, New Jersey for some years has played the part of highwayman and "held up" every stranger that sought to enter its gates; therefore the wails arising there awake no sympathy whatsoever. His constituents now are about to reap the full fruits of Frelinghuysenism, as the Motor World so often predicted would be the case, and it is such bitter fruit that if it does not serve to make them turn on the author of their discomfiture they will deserve all that he has handed or may hand to them.

The "auto editor" of a New York afternoon paper who draws $75 per month from the treasury of New Jersey, and who tries hard to prove himself worthy of his hire, has announced that he is endeavoring to have New Jersey's Commissioner of Motor Vehicles come to New York and point out the beauties of the New Jersey hold-up system and thus convince New Yorkers of its wise, benevolent and brotherly charac-

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ter. But the commissioner best had remain in Trenton. The beauties of the system are so apparent that any effort to paint them in other than their true colors can but excite horse laughs. In Trenton, the commissioner can continue to throw out threats and thus serve to induce the states that are an integral part of the union to "pile the agony" on any wandering Jerseyman who may come within their grasp. These threats may serve to keep "Carpetbag Joe" in the background and to becloud his responsibility in the matter, but they will not help his constituents, who, if they are wise, will force "Joe" into the open. His candidacy for the gubernatorial nomination of New Jersey has been formally launched, and the outraged New Jerseymen should welcome, with stuffed clubs, the opportunity it suggests. "Joe" richly has earned the right to spend even more of his time in his insurance office and in his home in New York. The citizens of New Jersey ought to make it unnecessary for him to spend any time packing his carpetbag for his annual visit to Trenton during the legislative session there.

In viewing the present situation and their present discomfiture, no New Jersey motorist should permit "Joe" to escape their thoughts and their resolutions.

## COMING EVENTS

July 28-29, Chicago, Ill.—Chicago Automobile Club-Chicago Athletic Club third annual interclub reliability team match.

July 30, Salt Lake City, Utah—Salt Lake "Telegram's" third annual hill climb.

July 30, Wildwood, N. J.—North Wildwood Automobile Club's race meet on Wildwood Speedway.

August 1, Minneapolis, Minn.—Minneapolis Automobile Club's reliability run.

August 3-5, Galveston, Tex.—Galveston Automobile Club's beach races.

August 6, Philadelphia, Pa.—Quaker City Motor Club's race meet at Point Breeze track.

August 6, Wildwood, N. J.—North Wildwood Automobile Club's beach race meet on Ocean drive.

August 9-10, Brooklyn, N. Y.—Brooklyn Motor Vehicle Dealers' Association's 200 miles reliability contest on Long Island.

August 11, Algonquin, Ill.—Chicago Motor Club's annual twin hill climb.

August 12-13, Philadelphia, Pa.—North American's reliability run for commercial motor vehicles to Atlantic City, N. J., and return.

August 13, New York City—Motor Racing Association's matinee at Brighton Beach track.

August 15—Start of second annual Munsey Historical Tour from Philadelphia, ending at Washington, D. C., 1,700 miles.

August 19-20, Brighton Beach, N. Y.—Motor Racing Association's 24 hours' race at Brighton Beach mile track.

August 20, Columbus, O.—Columbus Automobile Club's race meet.

August 23, Cheyenne, Wyo.—Cheyenne Motor Club's race meet on motordrome.

August 26-27, Elgin, Ill.—Chicago Motor Club's road race and speed carnival.

August 31, Minneapolis, Minn.—Minnesota State Automobile Association's reliability run.

August 31-September 8, Kansas City, Mo.—Automobile Club of Kansas City's reliability contest.

September 2, 3 and 5, Indianapolis, Ind.—Grand Circuit meeting on Motor Speedway

September 3, Wildwood, N. J.—North Wildwood Automobile Club's reliability run to Philadelphia.

September 5, Denver, Col.—Denver Motor Club's 200 miles road race.

September 5, Wildwood, N. J.—North Wildwood Automobile Club's beach race meet on Ocean drive.

September 5-10, Minneapolis, Minn.—Automobile races at state fair grounds.

September 7-10, Buffalo, N. Y.—Automobile Club of Buffalo's touring reliability contest; 800 miles.

September 9-10, Providence, R. I.—Rhode Island Automobile Club's annual meet at Narragansett Park.

September 10, San Francisco, Cal.—Automobile Club of California's Portola road race in Golden Gate Park.

September 10-12, New York City—Motor Contest Association's Catskill tour and hill climb.

September 15, Oklahoma City, Okla.—Oklahoma Automobile Association's hill climb.

September 15 and 17, Lowell, Mass.—Lowell Automobile Club's road races.

September 17, Norristown, Pa.—Norristown Automobile Club's race meet.

September 18, Syracuse, N. Y.—Automobile Club of Syracuse-Syracuse Automobile Dealers' Association joint racemeet at Fair Grounds track.

### Windshields and Their Effects.

One hopeful opportunity that presents itself in connection with the observed tendency of manufacturers to increase the amount of standard equipment for their products is that of adapting such equipment absolutely to fit the needs of each style and size of car produced. The idea is suggested by the record elsewhere in this issue of tests recently carried out abroad which reveal the need of care in selecting the form and location of the wind shield. With so many different forms of shield on the market, the temptation is to select a pattern that harmonizes with the design of the car and that is not disproportionately expensive. In the production of a well thought-out car, however, the scrupulous manufacturer will not be content to choose his equipment on a superficial basis. It will be required to meet every possible demand of service.

It has been shown that an ill-chosen pattern of wind shield may utterly defeat its purpose by causing a severe back draught on the occupants of the front seat, while cutting off the front draught which after all might be far less unpleasant to withstand. That the height of the shield, its angle and its position relative to the seats, as well as whether one or two shields shall be employed are questions depending very largely upon the form of the car body, is a conclusion which shows the importance of exercising proper discretion in selecting the equipment. Apparently, to do the product full justice, the cautious builder would be warranted in going about the choice of equipment as systematically as he does about the selection of such components as he elects to buy from the parts maker.

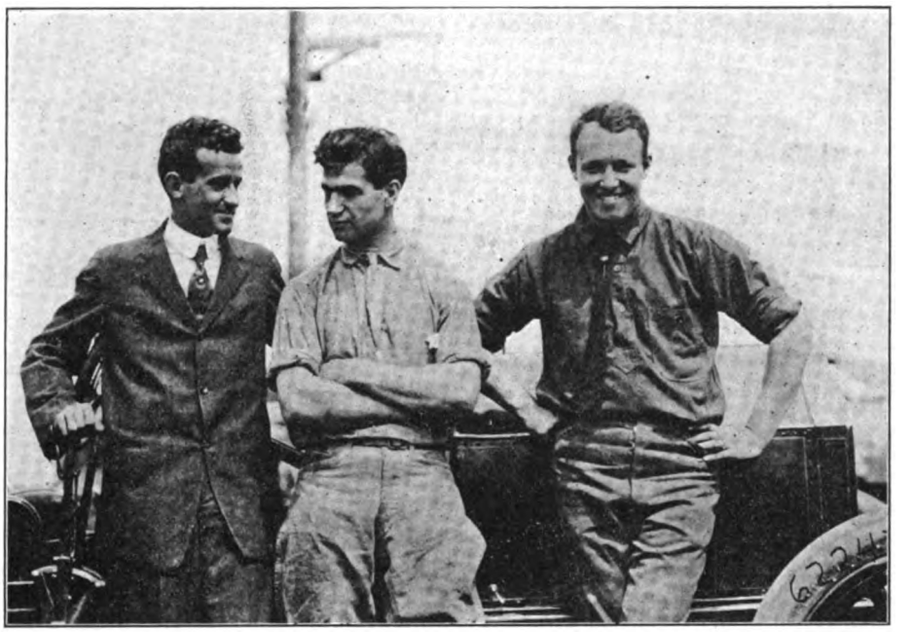
Motors, axles, gearsets, bearings and such auxiliaries as carburetters, ignition and lubrication devices are not determined upon until the field has been canvassed very thoroughly and the relative suitability of a large number of sample devices or systems ascertained by test. In the matter of equipment it is much easier to choose on a basis of cost and appearance than to go into the matter of serviceability as thoroughly as is necessary where actual running conditions are at stake. But the manufacturer who takes pains to secure harmonious results and to forestall dissatisfaction of even the most trifling nature by setting an equally high standard in mechanism and equipment is destined to reap the full benefit of his extra efforts. And should the time come when practically all cars are sold fully equipped, it would be of no small advantage to the salesman to be able to show that in including the accessories in the original sale something more had been done than to clip the wings of the retailer.

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## THRILLS AT BRIGHTON MATINEE

### Robertson Wins the Hour Race—Defeats DePalma—Bragg Smashes a Fence on His Way to Victory.

George Robertson and his Simplex racing machines proved an unbeatable combination at the Motor Racing Association's matinee at Brighton Beach track, New York, on Saturday afternoon last, 23rd inst.; they captured the two stellar events—the match with DePalma and the hour race. More than 10,000 spectators saw the performance. While Robertson was the headliner of the afternoon, Caleb Bragg, the A. A. A. "amateur," also won two events, and, incidentally, qualified as a fence smasher of the first order. Bragg accounted for the amateur event after a sensational dive through the fence and an equally breath taking return to the track, and topped off this bit of acrobatic work by winning the 10 miles free-for-all, thereby robbing the declared "pros" of the fattest purse. DePalma partially retrieved himself for his defeat in the match by leading Robertson under the wire in the 10 miles event for cars in the 451-600 displacement division.



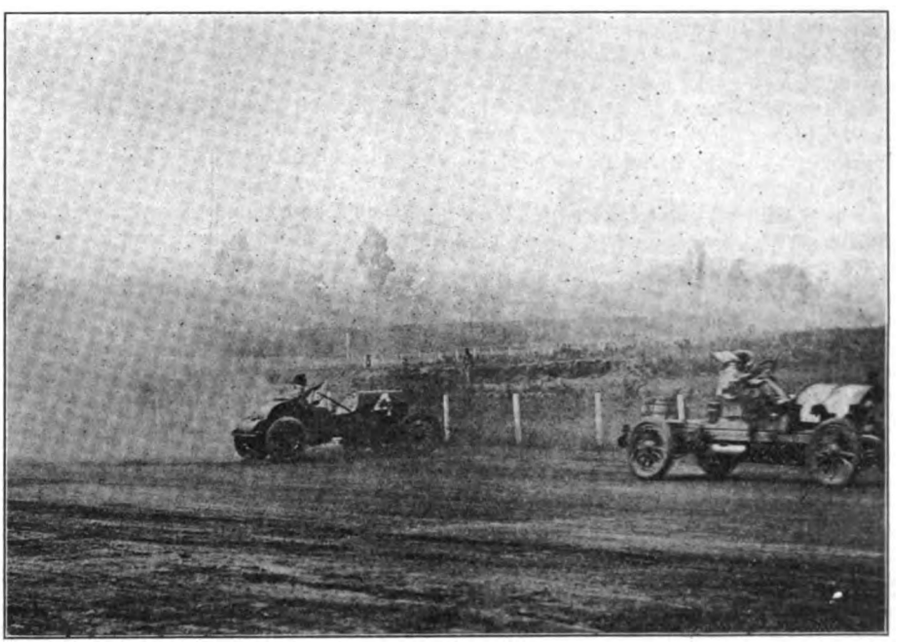
"AMATEUR" BRAGG AND "PROFS." DE PALMA AND ROBERTSON

Although Robertson apparently demonstrated his superiority over DePalma in decisive fashion by winning the $500 match in straight heats, the result by no means settles the question as to who is the better man, for there were some extenuating circumstances. Tire trouble was one of them and another was the disparity between the two cars, the Simplex being rated at 90 horsepower while the Fiat Cyclone mounts a 60 engine. Both cars have the steering posts on the left side, being the first racing cars so fitted.

Anticipating tire trouble it was agreed that should such mishap occur in the first heat the heat would be restarted. This foresight proved well founded, for it was necessary to send the men away three times for the first five miles heat, both Robertson and DePalma suffering blowouts in the first and second sendoffs. Having won the toss, DePalma was on the pole and elected that the start be a standing one. He was first away on the break, and opened up a lead of 20 yards in the first lap, which Robertson cut in half the second time around. The third circuit saw DePalma widening the gap again, but it was not for long, for the Simplex took on added speed and Robertson passed his rival in the fourth mile. Immediately thereafter DePalma slowed appreciably and pointed to his tires, which were worn down to the canvas; he declined further to tempt fate, but Robertson continued and finished with a flat tire, 100 yards in the lead. His time was 4:41⅗. DePalma protested the awarding of the heat to Robertson on the ground that his (DePalma's) tires were unsafe to continue, but the referee disallowed the protest, pointing out that whatever their external appearance they held air throughout.

So destructive to tires were the newly cemented turns that it was decided to cut the second heat to two miles. Again DePalma got away first and stayed in front for the first lap. Robertson was at his heels and after several unsuccessful attempts to pass, finally did so on the upper turn, when DePalma made an error of judgment and ran wide, Robertson cutting in on the pole. On the backstretch Robertson drew ahead and won by 50 yards in 1:49⅘. He drove the second mile in 51⅘ seconds, a new record for the track.

Although he had an abundance of speed and was able to run away from his rivals at will, Robertson only managed to win the hour race by a close margin on account of a stop for tires. Eight started, the race being open to all contestants in previous 24 hour races at the track. Robertson went to the front in the first mile and stayed there for 33 laps, with the rest of the bunch trailing and fighting among themselves for position. In the 33rd mile a flat tire sent the Simplex to the paddock, and when he returned to the grind, Robertson was in fourth place with a mile and a half to make up. He soon overhauled Juhasz in the S. P. O., and later Cobe, in the Palmer-Singer, whose tires went bad in the 40th mile. Disbrow, in the Marion, the sole re-



BRAGG CHARGING THE FENCE IN THE FREE-FOR-ALL

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maining runaway, was nabbed at 45 miles, and Robertson then led the procession to the finish, reeling off 53 miles in the hour.

Giving away handicaps up to 55 seconds and tarrying long enough to mow down a few fence rails in the infield, Bragg, in the Fiat, put up a whirlwind exhibition in the five miles handicap, and won by several lengths in the fast time of 4:46⅕. The unscheduled and heart-stopping performance occurred in the second mile, when Bragg, who was last, was coming into the stretch from the notorious "Death Turn." Without warning the Fiat skidded into the inner fence and broke through into the infield. With superb coolness and presence of mind, when Bragg found himself in the enclosure and the car still in commission, he deliberately smashed his way back onto the track and went in hot pursuit of the field. He was given a great ovation when he passed the stand, and steadily mowed down the long markers, overhauling the last man in the fifth mile. Doig, Simplex, was second.

DePalma in the Cyclone "had it on" Robertson in the little Simplex in the 10 miles event, 451-600 class, and won handily. Disbrow in the Knox was third. Time, 10:00⅗. Leo Anderson, Midland, also did a bit of fence breaking in the 10 miles for cars with 301-450 cubic inches displacement, and continued in the race, which was won by Beardsley, Buick; Lorimer, Chalmers, was second, and Anderson third. Time, 10:05⅗.

The summaries:

Ten miles, under 160 cubic inches—Won by C. B. Derby, Hupmobile; second, A. C. Dam, Hupmobile. Time, 13:55⅗.

Ten miles, 161-230 cubic inches—Won by W. H. Endicott, Cole; second, H. A. Neeley, Paterson. Time, 12:32⅗.

Ten miles, 231-300 cubic inches—Won by L. A. Disbrow, Marion; second, Spencer Wishart, S. P. O.; third, J. Juhasz, S. P. O. Time, 10:55⅗.

Ten miles, 301-450 cubic inches—Won by R. E. Beardsley, Buick; second, Lee Lorimer, Chalmers; third, Leo Anderson, Midland. Time, 10:05⅗.

Five miles handicap, amateur—Won by Caleb Bragg, Fiat (scratch); second, James Doig, Simplex (15 seconds). Time, 4:46⅗.

Ten miles, 451-600 cubic inches—Won by Ralph DePalma, Fiat; second, George Robertson, Simplex; third, Louis Disbrow, Knox. Time, 10:00⅗.

Ten miles, free-for-all—Won by Caleb Bragg, Fiat; second, Louis Disbrow, Knox; third, Leo Anderson, Midland. Time, 10:09⅕.

Special match, Robertson, Simplex, vs. DePalma, Fiat—First heat, five miles—Won by Robertson. Time, 4:41⅗. Second heat, two miles—Won by Robertson. Time, 1:49⅘.

One hour race—Won by Robertson, Simplex, 53 miles; second, Louis Disbrow, Marion, 52¾ miles; third, Harry Cobe, Palmer-Singer, 52 miles.

## APPLYING NEW YORK'S NEW LAW

### Koenig Gets Enough to do—Can't Deliver All Number Plates—Buys a Car for "Road Tests."

Although Samuel S. Koenig, New York's Secretary of State, has been greatly perturbed because automobile owners and chauffeurs were not filing their applications under the new law in sufficient numbers to please him, Koenig has had more than enough during the past week to keep him busy. The applications have overwhelmed even the increased force in the automobile bureau in Albany, and not even night work has served to reduce the volume.

But while Samuel has been complaining of the tardiness of owners and chauffeurs, it transpires that he himself has been so remiss that it is extremely improbable that all of those who sent their registration fees will receive their number plates in season for use on August 1st, when the new law goes into effect. Koenig admits as much, and intimates that the police will have to "go easy" for a while. The number plates have been slow in coming through, nor are they things of beauty. They consist of white enameled figures riveted to a plate of blued steel, and they are being distributed on a hit and miss plan. Owners who sent their money to Albany a month or more ago have not yet received their plates, while others who did so but recently already are in possession of theirs. The first few lots were delivered to the owners, but this week it was announced that New Yorkers must hereafter call at 76th street and Broadway, where chauffeurs are being examined and where the so-called Touring Club of America is receiving such fine advertising, and stand in line and prove their property, so to speak.

The examination of chauffeurs is proceeding more or less merrily. "Full houses" are so much the rule that Mr. Koenig's highly competent political examiners are conducting "night schools" in order to relieve the pressure. Joseph Tracy, the assistant chief examiner and one of the few who really "know automobiles," already has had enough. He resigned this week. The hardest thing many of the chauffeurs have to contend with is their record of arrests. Not a few of them with long records dodged the question on this point and have had their blanks returned to them. Unexpectedly their "sins have found them out," and they are in a pretty pickle; some of them are depending on political influence to see them through.

So far as known, no chauffeur has been subjected to a road test, but it is announced that Mr. Koenig, with the state's money, of course, has purchased a Locomobile for the purpose of—well, testing the skill of the chauffeurs. It is perfectly clear that with 30,000 drivers to "test out," one car will fill the bill, or some bill, anyway.

The new law appears fairly well understood, save in respect to the speed limits enforceable. While it is generally known that New York, Buffalo and Rochester, as cities of the first class, can set their own limits and that in the open country 30 miles per hour is the limit which defines "careful and prudent" driving, it is not so well known that in all save the cities named a speed of less than 15 miles an hour cannot be imposed. The law requires that "Slow Down to — Miles" signs be erected and that copies of local ordinances be filed with the Secretary of State at least 30 days before they become effective—a fact the full meaning of which appears not to have dawned on any of the many cities and towns affected.

### Oldfield Entertains the Parkersburgers.

More "world's records for half mile dirt tracks" apparently went by the board at the Parkersburg (W. Va.) Automobile Club's race meet at Shattuck Park, on Thursday, 21st inst., when Ben Kirscher, understudy of Barney Oldfield, drove his battle scarred Darracq two miles in 2:24. It would seem, however, that the Teuton's "records" don't count with Barney, for despite the fact that Kirscher drove a mile on a half mile track at Wheeling a few days previous in 1:05½, which duly was announced as superseding Oldfield's record of 1:06¼, when the latter twice circled the Parkersburg oval in 1:06 the announcer gave it out as a new record, ignoring Kirscher's figures. The meet was marred by an accident, the car driven by A. H. Wheaton crashing into the fence. He got off lightly, but his mechanic, John Dana, was seriously hurt.

### Mayor Stands up for Youthful Drivers.

Although various states have decided upon an age limit for chauffeurs, and many cities have passed ordinances to this effect, the mayor of Lawrence, Kan., does not believe in restricting the age of automobile drivers to some limit fixed arbitrarily. In vetoing the ordinance when it came to him for approval, he stated that many young men of 17 or even less were just as capable and reliable as a good many older men and that the fixing of 18 years was arbitrary and unjust.

### Motor Parkway Sweepstakes Off.

Giving as a reason the professed inability of several of the dealers who had entered cars to secure their 1911 models in time for the event as originally scheduled, A. R. Pardington, general manager of the Long Island Motor Parkway, has announced that the Inaugural Parkway Sweepstakes, which were set for Saturday, 30th inst., have been declared off for the present.

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## PREMIER LOSES GLIDDEN TROPHY

### A. A. A. Sustains Protest and Awards Prize to Chalmers—Premier Goes to Court and A. A. A. Delivers Uppercut.

Although judges are chary of such things and usually make short work of them, it is possible that the Glidden touring contest of 1910 may be re-run in the courts. The Premier Motor Mfg. Co. has made the first move in that direction. For after having won the Glidden trophy, the Premier company has lost it, and has appealed to the courts to regain it and to prevent its being presented to the Chalmers Motor Co., to whom it has been awarded.

It lost the famous prize at a meeting of the contest board of the American Automobile Association, which occurred in New York on Thursday last, 21st inst., at which the protest of the Chalmers Motor Co. against the Premier cars that participated in the Glidden contest was considered. As it was not generally known that the Chalmers people had appealed from the decision of the referee awarding the trophy to Premier No. 1, which was driven by Ray McNamara, the action of the board in disqualifying the Premier and awarding the prize to the Chalmers, driven by William Bolger, was almost in the nature of a sensation. It was followed by another one when the Premier company on Saturday applied to and obtained from Judge Kelly of the Supreme Court of New York State, a temporary injunction restraining the A. A. A. from delivering the prize to the Chalmers company. The sensations did not end there, as yesterday (Wednesday) the A. A. A. contest board reconvened and countered heavily on the Premier interests by disqualifying the Premier Motor Mfg. Co. and H. O. Smith, its president, and until further notice rendering them ineligible to all contests sanctioned by the A. A. A.

The Chalmers protest against the Premiers, which originally was over-ruled without hearing by the referee, due to misunderstanding, it now is alleged, was due to the fact that both Premiers, Nos. 1 and 2, were equipped with auxiliary oil tanks and pumps for forcing oil direct to the crank case, which the Chalmers' interests contended was a violation of the rule relating to stock cars. The Premier people then claimed that 22 per cent. of their product was so equipped and the referee apparently accepted the statement. The Chalmers appeal to the A. A. A. contest board followed. At the hearing on Thursday last the Premier company was represented by counsel in the person of Sidney S. Gorham, of Chicago, who once was secretary of the A. A. A. Others present were: S. M. Butler, chairman; David Beecroft, T. A. Wright, J. H. Wood, of the contest board; Alfred Reeves, E. R. Hollander, of the advisory committee; Alexander Churchward, Alden L. McMurtry, of the technical committee.

The meeting was long and, there is reason to believe, animated. The result was that the Chalmers protest was sustained and the Glidden trophy awarded to the Chalmers car. The decision of the board was made public in the following form:

"The appeal of the Chalmers Motor Co. is sustained. There was no evidence adduced before the contest board on this appeal, or before the referee or at the time the Premier entries were made, or at the start of the 1910 Glidden tour, to prove that the auxiliary oil tank and pump equipment was stock equipment. The contest board finds that this auxiliary oil tank and pump equipment was not stock equipment under the rules.

"The Premier Motor Mfg. Co. failed to comply with Rule 6 of the 1910 Contest Rules in not furnishing to the technical committee of the American Automobile Association, after repeated demands, from June 29th to July 21st, 1910, during which period three of its members visited the Premier factory, evidence sufficient to establish the stock status of Premier cars Nos. 1 and 2 entered in the 1910 National Reliability Tour of the A. A. A., in respect to equipment of auxiliary oil tank and pump for injecting oil direct to the crank case.

"The decision of the referee is reversed and Premier cars Nos. 1 and 2 are disqualified and the Glidden trophy awarded to the Chalmers Motor Co.'s entry No. 5."

The Premier counsel lost no time in calling into the case a New York attorney, George C. Lay, and in hurrying across the Brooklyn bridge to Judge Kelly, who promptly granted the injunction which temporarily at least serves to prevent the delivery of the trophy to the Chalmers company. Concurrently, H. O. Smith, president of the Premier company, issued a long statement, the burden of which is that the A. A. A. should have discovered the offending oil tanks and pumps before the contest started, and if they were illegal and in violation of the stock car rule should not have permitted the Premier cars to start. Among other things, he says:

"It has not been, nor will it be, charged or intimated by anyone that the entrants of the Premier cars were guilty of any misconduct, or that any deception or sharp practice was attempted by them or either of them. On the contrary, their good faith is acknowledged. If the cars, for any reason, were not eligible, it was the duty of the technical committee to have so advised the entrants and disqualified the cars before the start of the contest, as the purpose of the preliminary inspection, as stated by rule 404, is to determine if each car 'is a stock car and regularly equipped,' and rule 53 further provides that 'a protest relative to classification, validity of entry or pertaining to the course, shall be made before the start of the contest.' The purpose of the last mentioned rule is obvious. It is intended to prevent a disappointed competitor, after his own hope of winning the trophy has been shattered, from protesting the winning car upon the ground that it was not eligible to compete and should not have been permitted to start. If such a competitor wins the trophy no protest of this character will be filed, and the non-enforcement of this rule gives him two chances, one of winning on the merits of the cars, and the other of winning upon a technicality. If, in the other hand, the Premier cars were entitled to start, and the technical committee decided that they were, no one can question my right to the trophy under a fair and reasonable construction of the rules. The score and entire official record of the Premier car No. 1, the accuracy of which has not been questioned, compared with the scores and official records of all other competing cars, was the basis upon which the referee awarded the trophy to me as the entrant of Premier No. 1.

"No fault has been found with the conduct of the drivers of the Premier cars during the contest, nor has even a suggestion been made that they, or either of them, failed to comply with the letter and the spirit of the rules governing the tour. The evidence submitted to the board, even if admitted to be true, would not justify the reversal of the referee's decision."

The A. A. A. contest board did not lose any time in meeting the Premier move. Yesterday, as stated, it reconvened and disqualified Smith and his company. Its reasons were succinctly stated in the following resolution:

"Whereas, Said H. O. Smith, president of the Premier Motor Mfg. Co., notwithstanding his entry blank agreement to recognize the jurisdiction of the contest board and abide by its rulings and decisions, now openly denies such jurisdiction and disregards the ruling of the contest board, and did on July 23rd apply to and secure from the Supreme Court of Kings county, state of New York, on his ex parte statement, a temporary injunction restraining and enjoining the contest board from taking the necessary steps for turning over the Glidden trophy to the Chalmers Motor Co., in accordance with the decision of the board of July 21st, 1910, and has caused to be published in the public press a statement of his actions and the reasons therefor, including allegations not in accordance with the facts against members of the contest board, all of which conduct is a breach of the 1910 Contest Rules and is prejudicial to the welfare of the sport and industry;

"It is therefore ordered that H. O. Smith and the Premier Motor Mfg. Co. are hereby disqualified and rendered ineligible for competition in all contests held under the sanction of the contest board of the A. A. A. until further notice."

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## AMERICAN RACE MEET IN CANADA

**Buffalo Association Crosses Border to Find a Track—Chevrolets with Special Racing Cars the Biggest Winners.**

With the latest snub-nosed speed creations of the Buick factory pitted against a field of ordinary stock machines of much less power it was not surprising that the Chevrolet brothers should have practically monopolized the program at the Buffalo Automobile Trade Association's two days race meet at the Fort Erie track, on Friday and Saturday, 22nd and 23rd inst. Between them the Buick pilots accounted for ten events, Louis gathering eight of them and his brother Arthur the remaining two.

While the "invaders" naturally usurped most of the spotlight, the local men managed to save a few events and had the pleasure of leading the Chevrolets to the wire on a few occasions. Ned McCormick had a fast Herreshoff which carried him to victory three times—in the free-for-all handicap and a 5 miles class event on Friday, and another 5 miles on Saturday. Both of the Chevrolets took McCormick's dust in the handicap, although they made desperate efforts to pass him. The Herreshoff machines were painted red, white and blue, respectively, and attracted much notice. H. P. Hardesty, Pullman, also captured a first by winning a class 5 miles race in fine style. Ned Crane, Maxwell, also registered in the winning column by defeating McCormick and Arthur Chevrolet in a handicap on Saturday.

First Day—Friday, 22d.

Despite the fact that the Grand Trunk railroad which connects the track (which is across the river on Canadian soil) with Buffalo is tied up by a strike, the automobile men solved the transportation problem in excellent fashion by arranging a ferry service to the Canadian shore, where busses met the throngs and carried them to the course. Notwithstanding this inconvenience the meeting was well attended on both days. To further facilitate the attendance of motorists with cars the management arranged with the Canadian customs men to admit all cars going to the track free of duty, special permits and tags being attached to the cars before they left the American side.

Without question the best race of the opening day was the 5 miles class for 231-300 cubic inches cars. Hardesty in the Pullman jumped the field at the gun, and unwound a remarkable burst of speed which gained him a lead of nearly 150 yards in the first lap. When the others realized the state of affairs they went after the runaway in determined fashion. Louis Chevrolet setting the pace for them. For three miles Chevrolet swallowed Hardesty's dust, slowly gaining on him and finally sailed by half a mile before the finish. Time, 5:22. After five straight victories in the stock classes and free-for-all, Chevrolet had to take water in the handicap. Crane in the Maxwell, the limit man, had one minute on the scratch men, and although they did some whirlwind driving they were unable to wear down the long markers. Crane won, McCormick was second and Arthur and Louis Chevrolet third and fourth, respectively. The windup for the day, a 5 miles class event, went to McCormick, Emmons being the runner-up. The Chevrolets, the only starters in the free-for-all, seesawed for the lead with an earnestness that seemed genuine. Arthur won by 100 yards in 5:08.

The summaries:

Five miles, 161-230 class—Won by Louis Chevrolet, Buick; second, Ned Crane, Maxwell. Time, 6:10.

Five miles, 231-300 class—Won by Louis Chevrolet, Buick; second, H. P. Hardesty, Pullman. Time, 5:22.

Five miles, 301-450 class—Won by Louis Chevrolet, Buick; second, H. P. Hardesty, Pullman; third, Ned Crane, Maxwell. Time, 5:40.

Five miles, 451-600 class—Won by Louis Chevrolet; Buick; second, Arthur Chevrolet, Buick. Time, 5:55⅕.

Five miles, free-for-all—Won by Louis Chevrolet, Buick; second, Arthur Chevrolet, Buick; third, Ned Crane, Thomas. Time, 4:59⅗.

Five miles handicap—Won by Ned Crane, Maxwell; second, Ned McCormick, Herreshoff; third, Arthur Chevrolet, Buick. Time, 5:37.

Five miles, under 160 cubic inches—Won by Ned McCormick, Herreshoff; second, Walter Emmons, Herreshoff. Time, 6:00⅘.

Second Day—Saturday, 23d.

As on the previous day, the Chevrolets again confiscated all but three events on Saturday, their victories being of the sure-thing order. Louis Chevrolet's star performance of the day was his mile record trial against Christie's mark of 54 seconds for the track. Despite the thick dust and ruts the Swiss daredevil hurled his beetle-shaped car around the oval in a reckless fashion that made the spectators gasp, but the best he could do was 0:55⅗. In the handicap McCormick and his Herreshoff again proved too hard a nut to crack, and won in a sizzling finish, Hardesty in the Pullman and Arthur Chevrolet following in that order. Hardesty evened up things with McCormick by trimming him in the five miles for cars selling at $1,201-$1,650, and the latter again accounted for the final event, 5 miles for cars under 160 cubic inches.

The summaries:

Five miles, 161-230 class—Won by Louis Chevrolet, Buick; second, Ned Crane, Maxwell. Time, 6:11⅘.

Five miles, 231-300 class—Won by Louis Chevrolet, Buick; second, H. P. Hardesty, Pullman; third, Ned Crane, Maxwell. Time, 5:45⅗.

Five miles, 301-450 class—Won by Arthur Chevrolet, Buick; second, Louis Chevrolet. Buick. Time, 5:26⅘.

Ten miles, 451-600 class—Won by Arthur Chevrolet, Buick; second, Louis Chevrolet, Buick. Time, 11:00⅗.

Five miles, free-for-all—Won by Louis Chevrolet, Buick; second, Arthur Chevrolet, Buick. Time, 5:08.

Five miles handicap—Won by Ned McCormick, Herreshoff; second, H. P. Hardesty, Pullman; third, Arthur Chevrolet, Buick. Time, 5:18.

Five miles, stock chassis, $1,201-$1,650—Won by H. P. Hardesty, Pullman; second, Ned McCormick, Herreshoff; third, Walter Emmons, Herreshoff. Time, 5:49⅘.

Five miles, under 160 cubic inches—Won by Ned McCormick, Herreshoff; second, Walter Emmons, Herreshoff. Time, 6:39.

**Miss Scott Completes Her Long Journey.**

Miss Blanche Scott, with her companion, Miss Amy Phillips, and her gold and white Overland car, have reached San Francisco. "The Car, the Girl and the Wide, Wide World" outfit, which left New York on the morning of May 16th last, was put on the road for the purpose of demonstrating that two bright young women, possessing, in addition to a natural fund of wit and wisdom, a good car, could travel that portion of the wide, wide world which is recognized by loyal citizens of the United States without let or hindrance, looking out for themselves, looking out for the car, and generally enjoying themselves after the manner known to nomadic aborigines—and American tourists. These objects, apparently were accomplished.

**To Start the Vanderbilt at Daybreak.**

If there is any helpful glamor or romance attached to the starting of the Vanderbilt cup race at daybreak, as often has been asserted, it will be demonstrated on October 1st, when the next contest for the famous trophy will be held on the Long Island Motor Parkway. The promoters have decided to return to the original order of things and start the cars on their long whirl at break of day. The early start, of course, requires the spectators to move to the scene during the night, and the moving undoubtedly adds picturesqueness to the occasion and serves as an excuse for very many things.

**Heavy Rain Postpones Atlanta Races.**

Rain which began shortly before starting time and fell in torrents for two hours, caused a postponement of the race meet scheduled at the Atlanta (Ga.) Motordrome on last Saturday, 23rd inst. It will be held on Saturday, 30th inst. A card of 15 events is on the tapis.

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## WISCONSIN CONTEST PROVES CLOSE

### Technical Examination Necessary to Decide the Winner—Six Days Eest on All Manner of Roads.

Six days of traveling over 808 miles of Wisconsin roads, embracing all sorts of highways from city boulevards to the vile backwoods stretches for which the Badger State is noted, sufficed amply to evolve a winner in the Wisconsin State Automobile Association's annual reliability contest on the 18th to 23rd inst., inclusive. While 22 of the 24 starters survived the gruelling test, and eight of them came through with perfect road scores, the fatal technical scrutiny killed off seven of the honor division and left Emil Hokanson and a Buick the winners of the Milwaukee "Sentinel" trophy, the final standing being as follows:

| Driver and Car | Penalizations | | | | | |
|---|---|---|---|---|---|---|
| | Road | Brake | Clutch | Motor | Technical | Total |
| Emil Hokanson, Buick | 0 | 0 | 0 | 0 | 0 | 0 |
| Emil Estberg, Pope-Hartford | 0 | 0 | 0 | 0 | 3 | 3 |
| M. E. Springer, Franklin | 0 | 4 | 0 | 0 | 2 | 6 |
| W. H. Diener, Ford | 9 | 0 | 0 | 0 | 0 | 9 |
| Wm. Fisher, Buick | 0 | 7 | 0 | 0 | 7 | 14 |
| Arthur Gardiner, Rambler | 2 | 14 | 0 | 0 | 0 | 16 |
| John Heber, Overland | 0 | 0 | 0 | 0 | 16 | 16 |
| G. L. Thomas, Reo | 0 | 8 | 0 | 0 | 11 | 19 |
| W. L. McEldowney, Jackson | 1 | 4 | 0 | 10 | 16 | 31 |
| W. R. Rice, Kisselkar | 0 | 26 | 0 | 0 | 8 | 34 |
| N. C. Rice, Kisselkar | 0 | 33 | 0 | 0 | 2 | 35 |
| G. D. Waite, Petrel | 26 | 0 | 0 | 0 | 12 | 38 |
| J. W. Eviston, Johnson | 23 | 0 | 0 | 0 | 19 | 42 |
| Arthur Ove, Kisselkar | 3 | 38 | 0 | 0 | 11 | 52 |
| Lewis Strang, Pierce-Racine | 9 | 33 | 0 | 0 | 11 | 53 |
| F. P. Wilkins, Mitchell | 56 | 0 | 0 | 0 | 1 | 57 |
| Gordon Bird, Corbin | 43 | 8 | 0 | 0 | 55 | 106 |
| C. Kobersteen, Badger | 78 | 52 | 0 | 0 | 12 | 142 |
| George Browne, Marion | 198 | 6 | 0 | 0 | 0 | 204 |
| A. A. Jonas, Cadillac | 115 | 46 | 0 | 5 | 256 | 422 |
| Ross Henwood, Ohio | 211 | 12 | 0 | 0 | 265 | 488 |
| Dan Arbogast, Badger | 605 | 22 | 0 | 0 | 21 | 648 |
| Edward Collier, Rambler | 2,613 | * | | | | |
| Chester Cheney, Staver | * | | | | | |

* Withdrawn.

Hokanson was pressed hard for first honors, and when the dust covered caravan returned to the Cream City on Saturday afternoon to undergo the technical ordeal, it generally was conceded that the holder of the trophy for the coming year would be either Hokanson, Emil Estberg with a Pope-Hartford or M. E. Springer, to whom were intrusted the destinies of the Franklin. Estberg went through the operative tests perfect, but the prospects of a tie were shattered when the mechanical sharps delved into the mechanism and found derangements which warranted them spoiling Estberg's spotless sheet with an assessment of three points. Springer drew penalties to the amount of 6 points for brake trouble and shortcomings in the technical quiz. The others who survived the road test without mathematical taxation were William Fisher, Buick; John Heber, Overland; G. L. Thomas, Reo, and W. R. and N. C. Rice, who drove Kisselkars.. Those who fell by the wayside were Edward Collier, Rambler, and Chester Cheney, Staver.

Long before 7 o'clock on Monday morning, the 18th inst., the starting hour, crowds began to gather in the vicinity of Hotel Pfister, Milwaukee, to witness the start of the largest and most pretentious motor function ever held in the Badger State. The weather man lent his aid by serving up his best brand of meteorological phenomena, and promptly at the appointed hour the contest got under way, John Heber in an Overland being the first to receive the word. Among the drivers, Lewis Strang, whose fame had preceded him, was the cynosure of all eyes, and temporarily forsook his aviation efforts on Long Island to participate in the contest at the wheel of a Pierce-Racine.

Madison, the state capital, was the destination of the endurancers on the first day, and the run was a repetition of the stock ovations which are promiscuously dealt out to contestants in motor events by the rural inhabitants. In many places lunches were awaiting those who cared to stop, while those who did not received their donations on the fly. Good roads were the rule, and the few spots which it was feared would cause trouble were conquered easily. All of the cars reached the night control, but four incurred penalties during the day. Strang drew 7 points for taking on water and stopping the motor, Eviston's Johnson was taxed 5 points for fan trouble and oiling, Bird in the Corbin incurred an assessment of 5 points for motor stops and carburretter trouble, and Wilkins' Mitchell fell from grace to the extent of 2 points through a broken lamp bracket.

In sharp contrast to the easy run on Monday, Tuesday's journey to La Crosse was a continual battle with sand, and the effects were vividly illustrated that night when the scores were given out, eight cars suffering penalties, and one, Cheney's Staver, being unreported. The most severe sufferer was Browne's Marion, which received 198 points for carburetter adjustment. Although the weather was superb, the rough going and innumerable water breaks made it a test of men as well as machines. It was after leaving Marquette that the motorists' trouble first began, sand over a foot deep being encountered, and when not struggling with this enemy they were taking impromptu roller coaster rides on the water bars, some of which were nearly two feet high.

At Elroy lunch was taken on high speed, and the town relay dashes were resumed. In the afternoon run more sand and rocks were encountered until Cashton was reached, when Fate gave her wheel another twirl and for the rest of the day the motorists' aching bones had temporary respite from emulating dice in a shaker. The usual turnout and greetings from the farmers helped to relieve the day's run of some of its disagreeable memories. It seemed as if all the farmers for miles around had decided to lay aside their hoes and plows for a day and make the coming of the tourists the occasion for a huge picnic party. The country roads were thick with groups of farmers' families, who were camped in shady spots with lunches spread out, and enjoying themselves while awaiting the coming of the motorists.

After a day of continuous and seemingly never-ending climbing up and sliding down steep hills, Eau Claire, the halfway point, of the contest, was reached on Wednesday night, 20th inst., with the surprisingly small number of three penalizations handed out for the day. The Staver, which had failed to report at La Crosse that morning before the start, was officially declared out of the contest, but continued as a non-contestant. Thirteen cars still retained perfect scores at the end of the third day. The morning run to Whitehall, where a stop was made for lunch, was uneventful, but in the afternoon there were a few happenings to relieve the monotony. Near Brackett a bridge was washed away, necessitating a four miles detour from the official route, and that four miles was a continuous manipulation of the gear shifting levers to negotiate the succession of hills encountered.

August Jonas and party in the Cadillac qualified as volunteer firefighters just outside Eau Claire by assisting some youngsters to extinguish a straw fire in the road. The motorists acquitted themselves nobly and no damage was done. At Eau Claire a large crowd greeted the visitors on their arrival, and that evening they were the guests of the Eau Claire club.

Although excellent weather and roads combined to make the run on Thursday to Merrill a real pleasure, five cars were docked for mishaps during the day, one of them, the Badger, driven by Arbogast, suffering heavily with an assessment of 68

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points. Eleven cars had perfect scores on Thursday night. The day was an exciting one indeed for the press representatives in Collier's Rambler, which twice shed a wheel but no one was injured. The first time the wheel—a rear one—came off near Chippewa Falls, and although no serious damage resulted it required five hours to get going again. In making up lost time the car was sent along at high speed for 100 miles, when the wheel again parted company with the car, and, jumping a high fence, landed in a nearby field. Temporary repairs were made and the car reached Merrill late that night. The town was dressed in holiday attire for the motorists and anything was theirs for the asking.

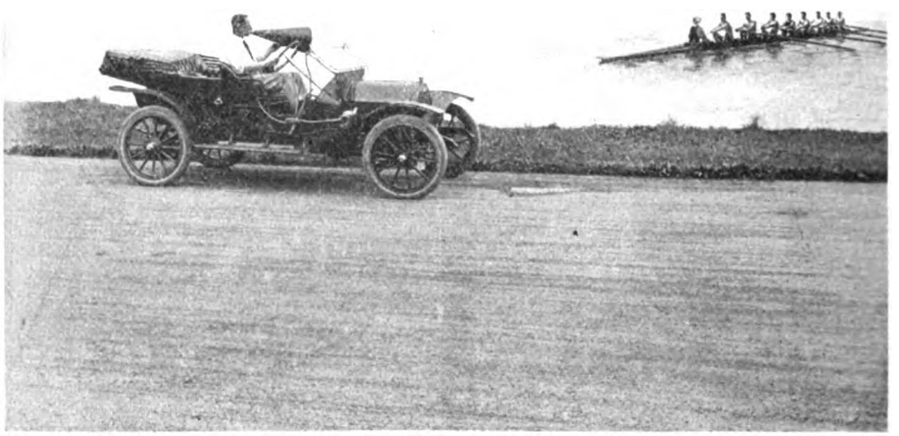
Making an early start from Merrill Friday morning, a dash of 120 miles brought the dust raising caravan to Appleton that night, after a tussle with several wicked sand stretches, but on the whole the day's going was fair. The unfortunate Collier Rambler which had wheel trouble the previous day continued under the burden of 1613 points charged against it for the mishap.

With the longest day's run of the contest, 158 miles, before them on the final day, Saturday, the fortunate ten who still had clean bills of mechanical health, headed for Milwaukee with the firm determination to preserve their spotless road records to the finish, but despite their best efforts two went down on the final leg. The unfortunates were Waite in the Petrel, who lost 26 points, and McEldowney, Jackson, who received one black mark. The Collier Rambler withdrew on Saturday, it being hopeless to continue under such a handicap. As previously mentioned, eight cars completed the run with perfect road scores, and immediately after checking in at the final control all the cars were put through the technical grill.

First came the brake tests, the cars individually following a pacemaker at 18 miles an hour, and the brake being applied on signal, a distance of 50 feet being allowed to bring the car to a standstill, with a penalty of 1 point for every additional foot required. Each car had two trials, the service and emergency brakes being tested separately. On the service test the Ford made the best showing, stopping in 25 feet, while with the emergency equipment 43 feet were required to come to a standstill. The Pope-Hartford and Overland brakes also showed up well, with stops in 31 and 28 feet respectively. The results of these tests furnish much food for thought, seven cars undergoing both tests successfully, while eight got by on the service test and flunked on the emergency tryout; two cars which overran the mark on the service test retrieved themselves with the emergency equipment, and five machines fell down on both tests. All of the cars passed the clutch test, which consisted of starting at the bottom of a hill on low speed and then throwing in the high.

### Motor Car Coaching for Rowing Crew.

Marathon runners and cycle racers have become quite accustomed to being coached from motor cars, but it is seldom that racers on the water enjoy the benefits of being coached from an automobile while they themselves are afloat, in the way disclosed by the accompanying illustration. One of the chief benefits of rowing in gymnasium tanks is the fact that the coach can be close to the men all through the rowing process and can give each of them individual instruction at the moment his faults appear, but Vivian Nickalls, at one time the premier sculler of the world, has found it possible, by using an Everitt car, to give to Detroit's star eight-oar crew all the benefits of tank instruction combined with actual work-outs in the shell. The rowing course is parallel to a boulevard, and by keeping pace in his machine, Nickalls is able to give megaphone instructions to each member of the crew, which latter, incidentally, won the Interstate eight-oar championship at Philadelphia on July Fourth.



COACHING THE COLLEGE CREWS BROUGHT UP TO DATE

### Punctures for Taft Intruders.

According to the newspapers the latest aid to the secret service men who keep watch over President Taft's summer home at Beverly, Mass., to prevent strange automobiles from infringing on the privacy of the President's grounds, is that time-honored rural weapon, the plank studded with nails and hidden in the grass. Despite the signs at the entrance to the grounds warning visitors to keep out, several motorists have driven their cars into the interior until held up and turned back by the secret service men. The roads are narrow, and in turning the cars ran over on to the grass, and it was here that the concealed enemy of tires got in its work. Many tires were mysteriously punctured when trespassing on the grass, but the reason was not apparent until an owner whose front tires went down suddenly investigated and discovered the cause and spread it broadcast. As a result the word has gone around, and unwelcome cars are giving the presidential quarters a wide berth, while Beverly garagemen decline to rent cars for a trip to the summer capital unless the renter has an appointment with the President.

### Taxicab Rears when Shaft Drops.

One of the most unusual of accidents occurred on Tuesday last in front of the St. Regis hotel, New York City. A taxicab was driven past the hotel at good speed, when suddenly the propeller shaft broke at its forward end and dropped to the ground. The jagged end buried itself in the soft asphalt, and the taxicab reared up on its front wheels, while the rear wheels kept on spinning in the air. For a few moments the car balanced itself on its front wheels and then dropped back to a level position once more. The two shocks pitched the two passengers first against the windshield and then against the rear seats, injuring them considerably. The accident is a rare one, and on some cars could never happen, as the forward part of the shaft is protected against dropping to the ground after a break by a loop-like arrangement which catches the falling shaft.

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## SEVENTEEN IN MINNESOTA RUN

**There Was a Prize at Stake, but Rivalry did not Interfere with Fun—Referee was Caged.**

Competing in the Minnesota State Automobile Association's second annual endurance run for the St. Paul "Dispatch" and other trophies, 17 cars filed out of the Minnesota capital on Friday, 22nd inst., on a six days test of 660 miles through Minnesota and South Dakota. The starters were as follows: F. E. Hypins, Cartercar; G. L. Gilbert, Chalmers; B. E. Sylvester, Glide; C. W. Schanno, Halladay; O. E. Martin, Hudson; A. H. Clark, Franklin; A. A. Hanson, Ford; W. A. Alden, Cole; Frank Seifert, Cole; Arthur Laroche, Regal; W. J. Ranger, Auburn; Rudd Stensvad, Cadillac; A. P. Heaney, Halladay; Troy Duis, Staver; C. A. Lewis, Reo; E. B. Stimson, Hupmobile; O. C. Phillips, Pierce-Arrow.

Styled the "Little Glidden," which now seems to be the proper appellation of most ambitious local endurance functions, the tour was launched successfully in the presence of a large crowd, with a limbering up run of 168 miles to Mankato laid out for the first day. The process of shaking down the cars and occupants was a gentle procedure, good roads and good weather collaborating in making the initial leg of the tour an easy one. Of course there were a few penalizations, but they were for minor troubles. Other promoting clubs can learn a lesson from the example set by the pilot car which placed red flags at approaches to dangerous points, thus enabling the drivers to avoid accidents through unfamiliarity with the territory. Towns along the route were dressed in flags and bunting, while the people lined the streets and cheered the visitors as they flitted by.

There were two narrow escapes from serious accident on the first day. While making up lost time caused by tire trouble, B. E. Sylvester, Glide, struck an obstruction near Albert Lea which caused him to veer from the road. The shock of the impact almost threw the occupants of the car out but Sylvester managed to retain control, and a broken spring was the sum total of the mishap. The other close shave happened to J. H. Seagraves in the Pierce-Arrow press car while trying to pass another machine on a curve. The dust was so thick that Seagrave did not notice the bend and ran off the road, jumping a six-foot ditch, but the driver straightened out and got back on the road without damage. The Hupmobile, Cadillac and Auburn were the other penalty winners on the first day.

On Saturday the visitors encountered rain and a stiff gale near Windom, which retarded progress considerably, and by way of good measure the pilot car contracted a fit of obstreperousness which resulted in its temporary abandonment, while Ranger's Auburn slipped off a culvert and turned turtle. Nor was this all of the day's happenings on the run to Sioux Falls in South Dakota, 172 miles, for one car was disqualified for violation of the rules. Near Windom the pilot went to the bad and the flag was transferred to another machine, while the disabled car was convalescing. Windom seemed to be a sort of hoodoo for the tourists, for it was near there that all of the mishaps occurred. Ranger's upset occurred while he, in trying to make room for another car to pass, pulled over too far on the edge of the road and went off a culvert into the ditch, landing upside down. The passengers were thrown clear and escaped with bruises. The engine of the car continued to run when it landed in a heap, and after the car was righted it continued in the run.

Entering Sioux Falls, the turning point of the run, the travelers observed the extensive decorations strung in their honor, practically every prominent building being dressed up. The motorists were accorded an enthusiastic welcome, and numerous receptions and entertainments were arranged in their honor for the following day, Sunday. The Studebaker press car, driven by S. H. Rothenberger of Minneapolis, which was not a contestant, was disqualified for breaking the rules by entering Sioux Falls ahead of schedule and for carrying advertising banners, and the owner was requested to leave the tour. During their stay in the city the cars were parked under guard at the Cataract Hotel.

After a day's rest and diversion, following a great banquet on Saturday night, at which over 300 people were present, the refreshed tourists left Sioux Falls with pleasant memories of their stay, on the homeward run. On Monday, 25th inst., Redwood Falls, 164 miles, was the day's objective, with Marshall designated as the noon stop. During the morning rain fell, but after reaching Tyler the sun broke through the clouds. The pilot car again fell from grace, losing the trail and taking the motorists into Tyler over a wrong road. The rough going began to tell on the cars, and many suffered spring and axle troubles.

In many respects Monday proved the most eventful day of the tour. Not the least interesting happenings were the doings of the occupants of the Pierce-Arrow press car. For a time they were lost in the tall grass near Heron Lake, but after floundering about for an hour they got their bearings again. The marksmanship of Driver Seagraves of this car was a general topic of conversation among the tourists when the story leaked out. For want of some excitement to relieve the monotony, the members of the party indulged in a little jack rabbit hunting on the fly, and Seagraves potted one of the animals while the car was running at 30 miles an hour.

For originality and heartiness of welcome the citizens of Marshall outdid all other communities, which entertained the tourists before them. A mile outside of the town the tourists came upon flags set in the road a few feet apart, and soon a party of 50 local motorists appeared to escort the travelers into town. Upon their arrival the tourists were led to the banquet hall, where they found the tables arranged in a circle and around their entire length ran a miniature automobile road lined with miniature cars. The ice cream was served in the form of small automobiles, and flags bearing the name of the town were distributed as souvenirs. At the conclusion of the banquet the post prandial exercises commenced and the guests were treated to another surprise when C. C. Whitney of the Marshall "News" arose and in a neat speech presented the visitors with a huge floral piece over five feet square. The unique gift later was shipped to St. Paul. It was with regret that the tourists prepared to leave Marshall for the afternoon run to Redwood Falls, where they stayed over night. Mayor Davis and other prominent citizens of Marshall accompanied the tourists to Redwood Falls. Although the afternoon's run was over heavy roads, the cars came through in good shape, the only tardy ones being the Cole and Hupmobile, which were delayed by tire trouble. An influx of over 100 people at one time proved too great for the Redwood Falls bonifaces, and the citizens opened their homes for the reception of the motorists.

Never in its history has Redwood Falls experienced such unrestrained high jinks as it did on Monday night, 25th inst. Mayor Philbrick gave the visitors the keys of the city and told them to go as far as they liked, and they took him at his word. The tourists seized everything in sight as their whims dictated, swooping down on the fire department apparatus and parading through the streets with it, tolling the fire bell and setting off pyrotechnics at a mock fire. Until long after midnight a crowd of lively spirits in single file did a lock step about town with the mayor, the marshal and chief of police at their head. Earlier in the evening the tourists captured the mayor, chief of police and a couple of the tour officials and imprisoned them in a cage in the city park, charging an admission of five cents to the enclosure to hear the captives make speeches. The receipts of the compulsory oratorical meeting went to defray the expenses of the evening's fun. It was with a warm spot in their hearts for Redwood Falls and its inhabitants that the tourists left that hospitable town on Tuesday morning for the final day's run, with Minneapolis, 154 miles away, to be reached before nightfall. The results of the contest will be made public today.

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## NEW JERSEY BEGINS TO SQUIRM

**Full Force of Frelinghuysenism Now Being Felt—Massachusetts Arrests Jerseymen and New York Makes Ready.**

New Jersey motorists now are gathering a full crop of the over-ripe and astringent fruit grown on the Frelinghuysen tree. The itinerant senator of that name whose dictum as once expressed in his exact language to a Motor World man was: "Everybody who comes into the state must pay something" is discovering that more than two can play at that game, and that it is an expensive and vexing one to the victims who are the citizens of New Jersey whom he represents in the legislature at Trenton when that duty calls him from his home and business in New York.

For several months the neighboring states of Pennsylvania and Delaware have been making things interesting for the New Jerseymen who stray in their direction, and on August 1st, when its new law goes into force, New York also will take a hand in the pastime. It then will be in a position to exact such an "admission fee" as New Jersey for years has squeezed from non-residents, in accordance with the Frelinghuysen dictum, and the howl which is arising from the opposite shore of the Hudson is sufficient to testify that the prospect is not a pleasing one. Point was added to the situation last week when the Highway Commission of Massachusetts issued instructions to all police and court authorities to keep eyes open for and to arrest and fine all New Jerseymen who wandered into the Bay State without having paid its "admission fee."

The immediate result was the discovery of three such offenders who promptly were haled to court and fined, and though they were not exactly escorted to the boundaries of Massachusetts and expelled like criminals, they were given permits or "passports" that allowed them to backtrack, without further molestation, to the Connecticut line, the Nutmeg State being the only one in the East in which New Jerseymen are free to travel without payment, which freedom probably will be curtailed by the next legislature.

Massachusett's stern illustration of the far-reaching effects of Frelinghuysenism was not lost on New Jersey.

Under the leadership of the Associated Automobile Clubs of New Jersey, which last year unsuccessfully sought similar legislation, plans are making for an immediate campaign to obtain the passage of reciprocal motor vehicle legislation in that state during the next session of the state legislature. Joseph H. Wood of Newark, president of the organization, declares that mass meetings will be held in all parts of the state to urge the wiping out of the present "admission fee" exacted of non-residents and to extend to them the same rights and privileges as have been extended by other states to New Jersey motorists.

How the New Jerseymen themselves view their predicament is illustrated by these expressions of one of them:

"We knew what was coming right along, and yet there seemed to be an apathetic feeling about the matter. Every one seemed to think it was some one else's business to take care of it. Both Delaware and Pennsylvania gave us an idea of what we could expect when they passed retaliatory measures last year. Later an interview was published with the men in New York who were then framing the Callan bill, and we were told that unless New Jersey did something to change the present law that would permit New Yorkers to come into this state under the same or similar conditions as New Jersey automobilists were enabled to tour New York state a retaliatory clause would be embodied in the law then framing.

"No action was taken by our legislature except to defeat such a measure and the bill went through. Now there is a howl. The Jersey motorist cannot go out of his own state unless he takes out another license. Even Massachusetts is adding pressure. The police of Springfield, Mass., arrested Dr. Frank B. Hustac of Montclair this week and fined him $15 for operating his automobile in that city without a Massachusetts license. It is all very well for Commissioner of Motor Vehicles J. B. R. Smith to write a letter to State Highway Commissioner Hunter of Pennsylvania threatening to withdraw the touring privileges from the Pennsylvania motorists, but the latter are not to blame and should not be made to suffer. Two wrongs do not make a right.

"Practically every state in this section of the country has embodied a reciprocal clause in its laws and we should do the same. True the legal committee of the different clubs in the state did make an effort to have a compromise measure passed at the last session of the legislature, but it seems to me they waited too long. It was a good deal like locking the door after the horse had been stolen. They waited until almost the close of the session before they got busy. Now that the pocketbooks of some of these gentlemen are being touched, they suddenly are waking up and there is a big howl.

"The New Jersey automobilists have all along wanted a free interchange of touring privileges, and it seems ridiculous that a mere handful of men at Trenton should successfully oppose fair and just legislation of this kind. There are close to 25,000 automobile owners in New Jersey, and figuring that each one can control but one vote in addition to his own it means a total of 50,000 votes which can be thrown against the man or men who refuse to give justice to the automobilists."

## STRIKES AT BOGUS STOCK CARS

**A. A. A. Wipes Out "Buick-Marquette" Performances at Indianapolis and Decides Two Other Cases.**

In addition to sustaining the protest of the Chalmers Motor Co. against the Premier car, which apparently had won the Glidden trophy, the A. A. A. contest board at its meeting on the 21st inst. wrestled with two other stock car cases and in each instance the alleged stock cars were thrown to the mat.

The Buick Motor Co. and the Marquette Motor Co., each of which is a part of the General Motors' merger scheme, were the worst offenders. It appears that the Marquette concern had registered as stock cars under the designation "Buick roadsters" three models which were not, in fact, stock cars or stock chassis, but which were permitted to be used at the Indianapolis meet on July 1st, 2nd and 4th, under the style "Marquette-Buicks," the privilege being given with the express condition that in the event of successful performance, such performance was not to be advertised under any other designation. This condition was violated when on July 10th the victories of the so-called "Marquette-Buicks" were advertised as Buick victories and because of this violation, the performances were declared null and void by the contest board. The Marquette company had a representative present at the board's meeting, but that his excuses or explanations proved insufficient or unsatisfactory plainly is indicated by the action taken.

The other case was of a different nature and involved the status of a foreign car. It took the form of an appeal of the chairman of the technical committee from the decision of the referee in allowing the 1903 Mercedes car owned by Spencer E. Wishart of New York, to compete in stock chassis events at the Indianapolis Motor Speedway July 2nd and 4th last also. The appeal was sustained, and the decision of the referee reversed on the ground that no car which has not filed with the contest board the stock car certificate of description shall be allowed to compete in any stock car or stock chassis events, held under Classes "A" and "B" of the 1910 Contest Rules.

The appeal of the General Motors Co. from the decision of the referee in disqualifying the Buick roadster driven by Robert Burman in the Brighton Beach 24 hours race, May 13th and 14th, 1910, for violation of Rule 249, which provides that "when one or more parts of an assembled unit are damaged, such damaged parts only may be replaced," also was heard, the appeal overruled and the decision of the referee sustained.

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# COLE 30-1911

# -the Classiest Car Of Them All

*A Car of Superb and Silent Service*

*The Car That Contains the Best of all the Rest*

## There's Satisfaction In Driving A Cole 30 —The Car You'll Be Proud to Own

There's an indescribable satisfaction in flying over the road in a car of the quality of the ***1911 Cole 30*** and the man who owns this roomy, luxuriously appointed car will be proud to show his nameplate when in the company of the biggest and highest priced cars on the market. It has the same graceful, effective, fetching lines and the same rich upholstering and the same, quiet running quality for which you must pay a thousand dollars more in other cars.

No car ever made excels, mechanically, the new 1911 models of the ***Cole 30***—no matter what its price. It is the sturdiest, most rugged, most practical car you could wish for—a car for long, rough trips—for short, fast runs—in fact, an all 'round car for city, or country use.

# NOW READY

During the season just closed, every one who saw our ***Cole 30 Flyer*** (Torpedo Roadster) was quick to acknowledge it the "niftiest" Roadster in the field, not only in appearance, but in performance as well—with its records of endurance and speed and reliability and dependability, of which any car, at any price, might well be proud.

A new world's record—for cars of its class—of 50 miles—43 minutes, 49.69 seconds. A clean sweep at Atlanta over a track covered with water and slush. An Economy Record of 23.6 miles to one gallon of gasoline during a run of 191 consecutive miles.

For the season of 1911 we still lead with the ***Cole 30 Flyer*** as the most desirable Roadster on the market.

In addition, we offer our new, ***"Fore-Dore" Touring Car—the classiest car on the market.***

Glance at the illustration—looks for all the world like one of those big, five thousand dollar cars—doesn't it?

And it is, too, in all save price.

Mere pictures and words can't begin to show these cars as they are. When you see them you will understand why—nay, more, you will marvel—the facts seem too good to be true—one can scarcely believe that such a car—the most up-to-date car on the market—can be sold at its price, because you have never before seen the equal of this ***Cole 30 "Fore-Dore" Touring Car*** sold for less than $3,500

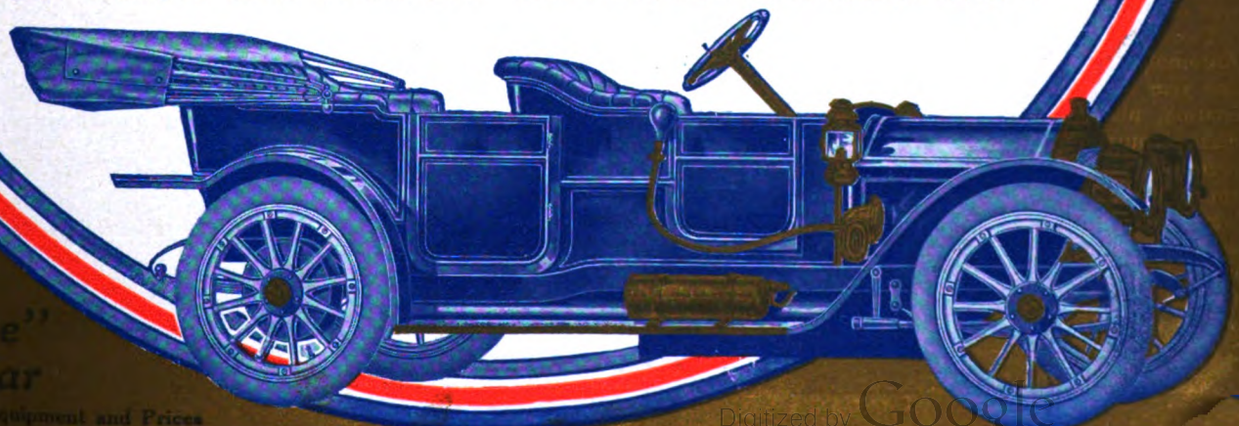
This ***Cole 30 "Fore-Dore"*** Touring Car truly "contains the best of all the rest." After a careful study of the finest American and Foreign made cars, we have adapted the best and most practical principles of the most renowned motor car engineers throughout the entire world.

It is a luxurious car—powerful and speedy—a car you'll be proud to own. Low in price—economical in up-keep—yet with all the perfections and appointments of the most expensive cars. Compare it with rival cars—with any car costing up to $2,500. We are willing to abide by your judgment.

Then remember this: Into each and every ***Cole 30*** that leaves our factory, just so much of the best materials are required—just so much skilled labor—just so much high priced attention—in order to build motor cars that will give complete satisfaction to the buyer.

We can only build a certain number of cars for the coming season and build them right, and we shall not indulge in a sensational selling season at the expense of quality.

That's why we say to you, Mr. Motor Car Buyer—don't wait 'till Spring—you'll be disappointed. If you want to secure the biggest motor car value to be offered this season—the time to choose is ***NOW***—see this car at once and decide if you want one, for orders must be filled in rotation—delay might mean our inability to supply you.

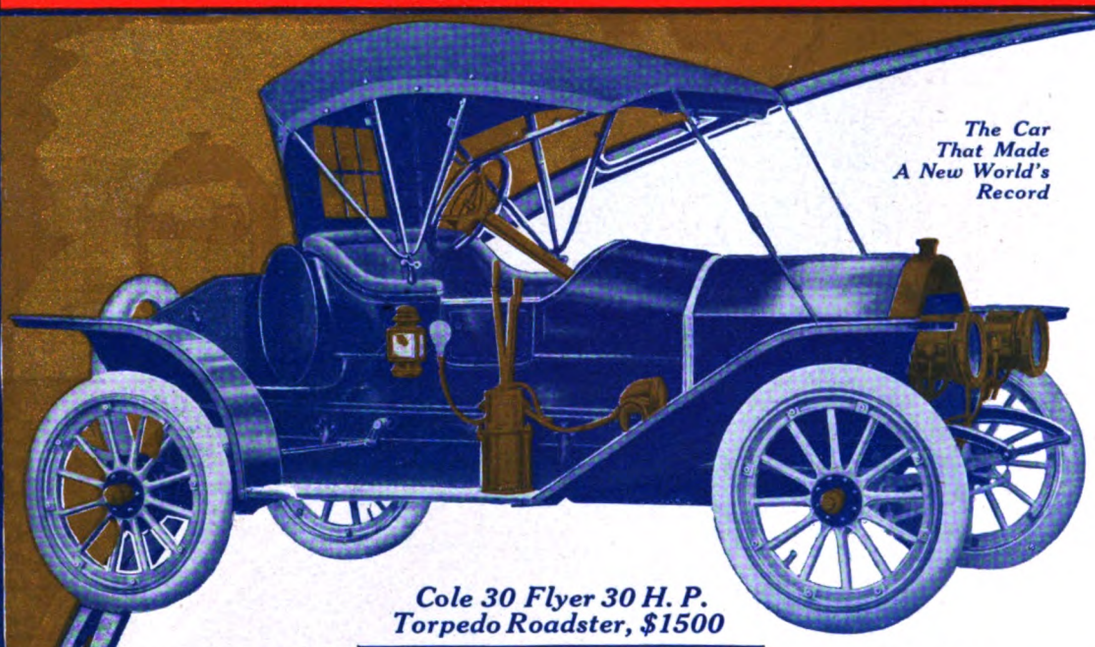


*The Cole 30 "Fore-Dore" Touring Car*

See Inside Pages for Equipment and Prices

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# 1911 Will Be a



*The Car That Made A New World's Record*

*Cole 30 Flyer 30 H. P. Torpedo Roadster, $1500*

## 1911—Greater Values

Every year in the history of motor car merchandising, ***so far***, some one particular car held the spot-light and center of the stage.

Nineteen eleven will be a ***Cole 30*** year—***so will 1912, 13—and then some more.***

The high ***Cole*** standards, the sane, sensible ***Cole*** methods, the carefully wrought ***Cole*** policies, both in manufacturing and selling, that have made 1911 ***Cole 30*** possible—will be scrupulously maintained and vigorously developed. They will be your assurance of ***Cole Thirties*** that ***you'll be proud to own***—that, if a dealer, you'll be proud to sell.

Far too many cars boast of some one, or two strong features under which a gross lack of equally important features is hidden. The ***Cole 30*** contains the best of all the rest—it affords all the superior qualities of the highest class of cars. It is the proven car that appeals to the motorwise—***it shows its class and, by performance, lives up to it.***

## Why $1,600

The ***Cole 30*** for 1911 will afford more real motor car value for your money than ever before. During the past year the cost of materials has advanced immensely and it takes more of each to make the larger car our 1911 specifications call for. This adds about $300 to the actual cost of manufacture—yet we have added but $100 to the price.

## The Unit Power Plant Means Extreme Silence

Its perfect smoothness of operation is largely accounted for by its unit power plant, designed upon mechanically correct principles and constructed of the highest grade materials with the nicest accuracy of workmanship.

The Motor, Clutch and Transmission are assembled as one compact unit, housed in one rigid case, mounted on a sub-frame at the front of the car, affording complete, positive protection of all working parts from dust and dirt and is easily accessible, and above all, it insures and preserves perfect alignment—there is no chance here for the distortion that causes noise, wear and repair bills.

Often you will find a car with a quiet motor hooked up with a noisy transmission, or ill-fitting connections, because it has not been properly lined up. In the ***Cole*** however, the unit power plant—motor clutch and transmission—it goes on the testing block and is properly worked upon until all noise is eliminated and friction reduced to a negligible point.

# Cole 30-1911

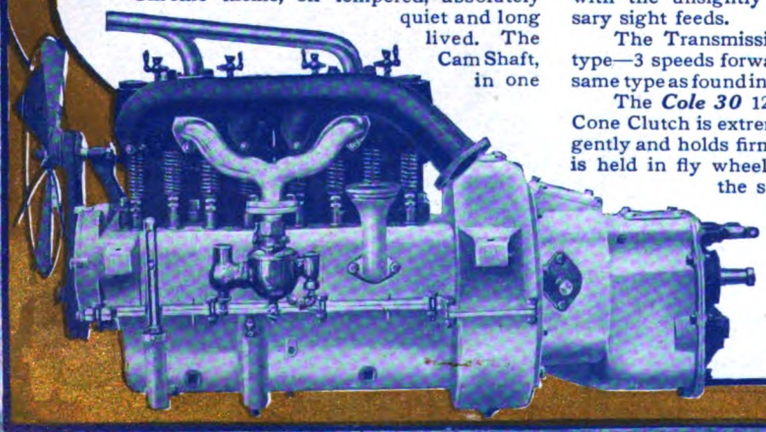
The Motor, 4 cylinders, 4 cycle, developing 36 Horse Power, is the simplest and most efficient motor ever designed. The cylinders are cast in pairs, and large water jackets surround the bore and valve pockets which amply take care of the cooling. The valves are of special nickle steel and interchangeable. Owing to their large size they give at least 15% more power than other motors of same bore and stroke. The Timing Gears are Chrome nickle, oil tempered, absolutely quiet and long lived. The Cam Shaft, in one piece with integral cams, is far superior to the built-up type which eventually gets loose and out of time.

There are two complete Ignition systems—the latest improved magneto geared direct to the engine and a regular battery system.

The Combined Pump and Splash Lubricating System is the best our experience has been able to find—it's certain in operation, economical in oil—does away with the unsightly piping and unnecessary sight feeds.

The Transmission is of the selective type—3 speeds forward and reverse—of the same type as found in the highest priced cars.

The ***Cole 30*** 12x2½ inch leather face Cone Clutch is extremely flexible—engages gently and holds firmly when engaged. It is held in fly wheel by a combination of the springs and is enclosed in an oil tight and dust-proof compartment insuring a cleanliness that is very essential to long life and efficiency.



## Records Which Prove Ruggedness, Dependability and Speed

That racing at high speed more effectually proves the real worth of a motor car than any other endurance test that could be given it, has been demonstrated beyond all question.

The fact that a ***Cole 30,*** a stock car, and the same car with Bill Endicott at the wheel, established new world's records for cars of its class at Los Angeles and made a clean sweep at Atlanta—the fact that the ***Cole 30*** is the only $1,500 car that ever stood the terrible punishment of a 24-hour endurance race, finishing as it did at Brighton Beach, without a single flat tire and the engines purring contentedly in perfect condition—the fact that a ***Cole 30*** led all in the finish of the great Savannah to Jacksonville Endurance Run, without showing a single defect after two days of fearful running over the worst roads imaginable—amply demonstrate how unusually rugged, how easy on tires, how perfect in lubrication, how thoroughly dependable, even under the severest tests is the ***Cole 30.*** They are your ussurance that when you invest money in a ***Cole 30*** you will get speed and endurance to the full limit of mechanical possibilities at a far less outlay for operation and upkeep than is possible with any of the big, high priced motor cars—that the ***Cole 30*** has a proven ability to completely satisfy its owner.

**C. P. Henderson,**
**Cole Motor Car Company,**

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# COLE 30 Year

## Larger Cars — 36 H. P.

Increasing the bore and stroke of our cylinders and making slight changes in the valves has increased the capacity of ***Cole 30*** engines to 36 H. P.—and 36 H. P. in a five passenger car affords an amazing amount of reserve energy—this means all the speed the road permits and ability to take the most stubborn hill without perceptible effort.

Our cars of last season were mechanically perfect—experience developed no weaknesses whatever—and our 1911 models are not materially altered in mechanical ways.

## Lengthened Wheel Base

It will have a 115 inch wheel base, 7 inches longer than our 1910 model—this means 7 inches more body room for the comfort of the passengers, making it a large, spacious, 5 passenger car you will be proud to own. It will have 34 inch wheels—2 inches higher than last season—and 4 inch tires as against 3½ last year.

## Easy On Tires

Too often tires are over-loaded—the larger the wheel—the larger the tire—the less burden on them. Don't be satisfied with a 3½ inch tire when you can have a 4 inch tire on the ***Cole 30***—that extra half inch will save you a lot of tire repair expense and the big 34 inch wheels assure road-smoothness.

The weight of the ***Cole 30*** has been kept down to the lowest possible notch, so as to minimize cost of upkeep.

## 23.6 Miles on a Gallon of Gasoline

On May 19th, the Technical Committee of the Chicago Motor Club arranged an Economy Run over the Chicago-Lake Geneva Course and return—a distance of 191 miles—open to all makes of cars—taking into consideration the weight and power of the car and relative consumption of fuel.

A ***Cole 30 Touring Car***—a stock car—driven by Johnson—carrying four passengers—total weight of 2,950 pounds—made this run well within the allotted time, carrying off the banner fuel record of 23.6 miles to each gallon of gasoline—and the run was made with no mechanical defects.

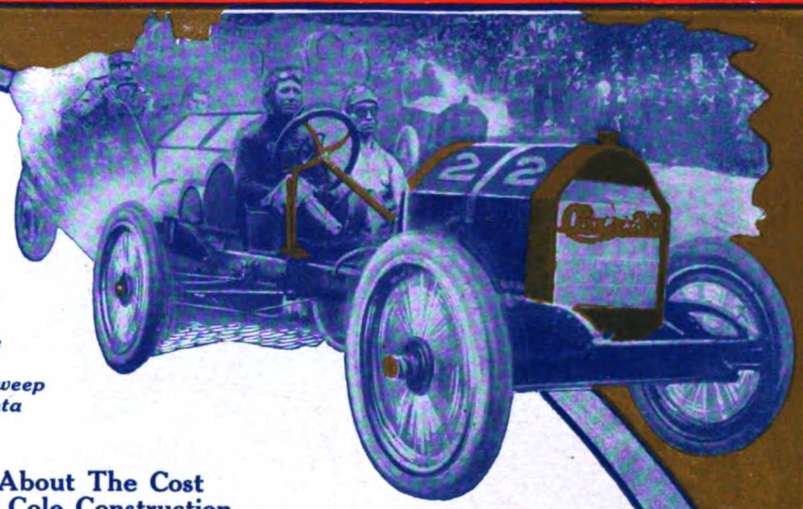
## Ask for a Demonstration

We say we have no competition and if you will take the trouble to have our local agent demonstrate the car, which he will be glad to do, without imposing any obligation whatever upon you, or write for our free booklets—***"Cole 30"***—***"New Records"***—which fully enter into all the details of the ***Cole 30,*** we will prove to you that we have stinted nowhere—that it is the equal of any car on the market today, at any price.

When you invest your money in a ***Cole 30,*** we undertake and agree to teach you, free, how to operate it and how to take proper care of it—and will stay right with you 'till you've caught the "know how."

We are not trying to make a record breaking output, but to make a record breaking car—a car so satisfying that each one will sell more.

**Sales Department,**
**Mfrs., Indianapolis, Ind.**



***Bill Endicott driving the Cole 30 in a Clean Sweep at Atlanta***

## About The Cost of Cole Construction

The same excellence of design—the same care in selecting the materials—the same nicety of workmanship shown in the construction of the power plant prevails throughout the car. If you knew what each integral part costs to make, you might think we put too much money into the construction of the ***Cole 30***—but the results warrant the cost. Every important part—parts upon which safety and durability depend—is made twice as strong as neccessary without any regard for cost. The ***Cole 30*** was designed and built to compete with the big, high priced cars in speed, endurance, luxurious comfort and effective, fetching lines—when this was accomplished, the cost and selling price were considered.

## Specifications 1911 Cole 30

***Motor***—4-cycle, 4-cylinder 4¼x4½, cast in pairs, ***36*** horsepower. Unit power plant with self contained oiling system. ***Transmission***—Selective type, three speeds forward and reverse. ***Ignition***—Latest improved magneto with tube coil and kick switch, also connected with dry cell batteries. ***Carburetor***—1¼ inch float feed type. ***Drive***—Shaft drive direct to bevel gears on rear axle. ***Axles***—Rear or bevel gear, full floating type, Hyatt roller bearings. Front, "I" beam with ball bearings and ball bearings on steering yoke. ***Brakes***—12 inches in diameter, 2¼ face. One pair external, operated by foot pedal and one pair internal, operated by hand lever; both acting direct on wheel drums. ***Steering Gear***—Worm and sector, built-up type—17 inch mahogany wheel, aluminum spider. ***Frame***—Double dropped pressed steel channel section, width, 33 inches, rear; 28½ front; length, 140 ins.; 4 inch drop in rear. ***Wheels***—Artillery type, fitted with Firestone demountable detachable rims. ***Wheel Base***—115 inches ***Tires***—34x4. ***Clearance*** 10½ inches. ***Tread***—56 inches. Optional 60 ins. ***Springs***—Front, semi-elliptic, 40x2 inches. Rear, full elliptic, with scroll ends, 38x2 inches. ***Control***—Spark and throttle located at top of steering column, also foot accelerator. ***Clutch***—Leather faced cone, operated in fly wheel, housed in unit power plant. ***Gasoline Capacity***—14 gallons. ***Oil Capacity***—6 pints. ***Bodies***—All sheet steel with ash frame. ***Upholstering***—No. 1 M. B. Leather, over curled hair and deep coil springs. ***Painting***—Regular. ***Equipment***—One pair side oil lamps and tail lamp, two Solar Short Couple Gas Lamps connected with generator; (Prest-o-lite extra); horn; one set regular tools; including pump and repair kit for tires and jack. Weight, approximately 2,500 lbs.

## *The Car You'll Be Proud To Own*

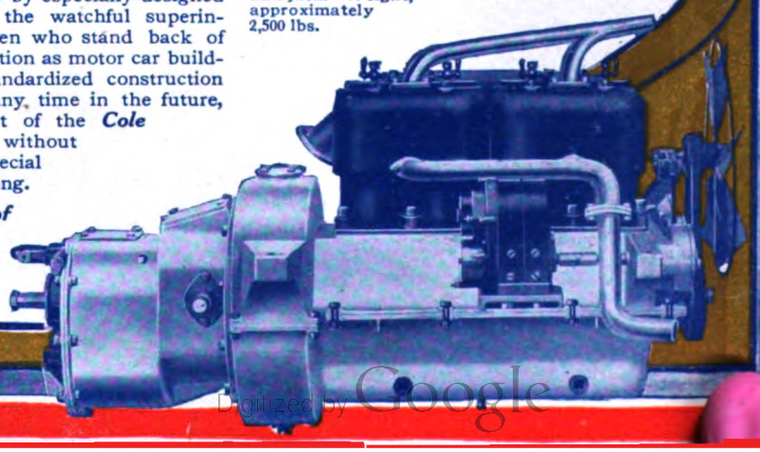
| | |
|---|---|
| Palace Touring Car, 36 H. P. . . | $1,600 |
| Cole Flyer, Torpedo Roadster, 36 H. P. | 1,600 |
| "Fore-Dore" Toy Tonneau, 36 H. P. . . | 1,650 |
| "Fore-Dore" Touring Car, 36 H. P. . . | 1,650 |

## Simplicity Is Its Key Note

The ***Cole 30*** is not a cheap car licked into shape and burnished up to sell, but a costly car—the equal of the highest priced car on the market in which the mechanism has been simplified at every possible point, without the sacrifice of a single iota in quality.

This simplicity means that the ***Cole 30*** is so easy to operate that you can master every detail in less than an hour—so that a chauffeur isn't necessary. It means less liability of parts becoming damaged and greater ease and less expense in making repairs—it means a much lower original investment—a motor car built in our factory by especially designed machinery under the watchful superintendence of the men who stand back of it with their reputation as motor car builders. It means standardized construction enabling you, at any time in the future, to replace any part of the ***Cole 30*** instantly and without the necessity of special construction, or fitting.

***It Means a Car of Superb and Silent Service at a Sane Price.***



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# COLE 30-1911

# The Car That's Easy To Sell

*Contains The Best of All The Rest*

*The Classiest Car of Them All*

## It Is Absolutely Certain To Meet With Unparalled Popularity

If you want the exclusive agency in your territory for the biggest selling success of the coming year—now is the time to get in—to get busy. Here are the reasons why:

Having the right car—a car that has made good repeatedly in every sense of the word—a car that's not only a "looker," but a "performer" as well—a car with an established reputation—we propose to spend a sufficient amount of money in a forceful, comprehensive advertising campaign, using large space in all the leading periodicals and standard magazines, to create more sales for ***Cole 30*** than will be made from any other single car on the market this year.

## NOW READY

***Cole 30*** Agencies can be found all over this country and our dealers are—and must be—real live wires, fully competent to demonstrate the superior quality of this car and ready and willing to handle the thousands of prospective buyers our advertising is certain to produce.

More than half of our output is now contracted for and before September 1st the balance is sure to be taken by responsible dealers. The complete line of ***Cole 30,*** 1911 models can be seen August 15, at the factory, or at our various distributors.

Motor car buyers no longer wait until Spring to buy and our ***"Fore-Dore" Touring Car,*** with the aid of wind shield and top, is a thoroughly practical winter car.

We are ready to close agency arrangements for 1911, with those who appreciate the possibilities and advantages of early fall deliveries and are in a position to give the 1911 ***Cole 30*** proper place and attention.

Into each and every ***Cole 30*** that leaves our factory, just so much of the best materials are required—just so much skilled labor—just so much high priced supervision in order to build motor cars which the buyer will be proud to own—which you'll be proud to sell—which we are proud to make.

We are not trying to make a record breaking output, but to make a record-breaking car, a car so completely satisfying that each one will sell more. We can only build a certain number of cars the coming season—and build them right—and we shall ***not*** indulge in a sensational selling season at the expense of quality.

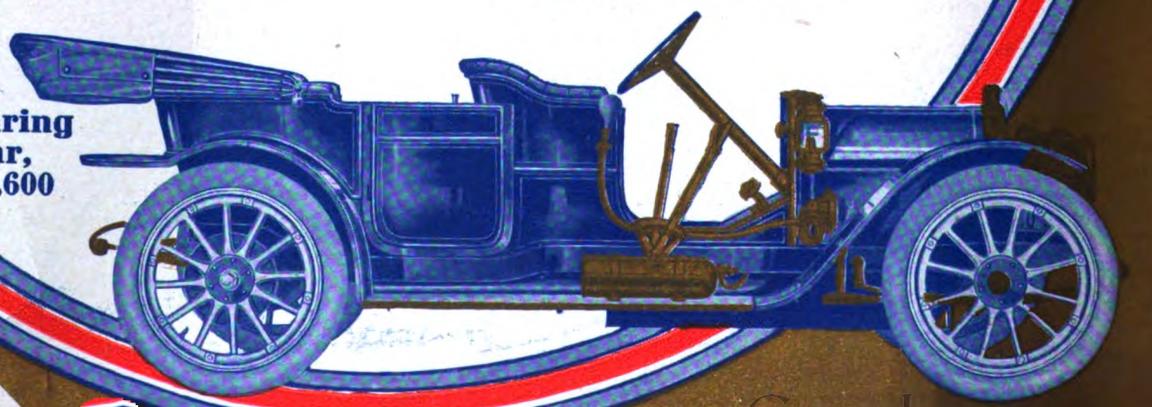
We are thoroughly satisfied that our 1911 ***"Fore-Dore" Touring Car*** and ***Flyer*** (***Torpedo Roadster***) will be the big hits of the season—and mighty profitable to those dealers who are fortunate enough to secure Agencies for the ***Cole 30*** line.

It is not a question of selling our output, but of placing it in the hands of the most desirable dealers.

Do you want to be one of the lucky ones? If so—get busy today—right now! Fill out and mail the coupon below for full particulars of our Agency proposition. If not rated in Dun's, or Bradstreet's, send references in order to have your application receive consideration.

**C. P. Henderson, Sales Dept.**
**Cole Motor Car Company**
**Indianapolis, Indiana.**

**Cole 30 Palace Touring Car, $1,600**



**C. P. Henderson,**
**Sales Mgr.,**
**Indianapolis, Ind.**

Please send me your Agency Proposition for ***1911 Cole 30.*** (If not rated, reference to be enclosed.)

Name.....

Street.....

City.....State.....

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## FRANKLIN LINE IN CHANGED DRESS

**Betterments in Bonnets and Bodies—New Valves and Oiling System Among Mechanical Modifications.**

The distinctive torpedo type of Franklin car, which made its appearance at the shows last winter, has been rendered permanent and the sloping hood which characterized that machine has been adopted for the entire line as it henceforth will be produced. This is one of the most significant changes which announcement of its new product by the H. H. Franklin Manufacturing Co., Syracuse, N. Y., has brought to light. In the mechanical make-up of the line a no less radical change is that involving the abandonment of the concentric form of valve construction and its replacement by a more stereotyped arrangement of the valves side by side.

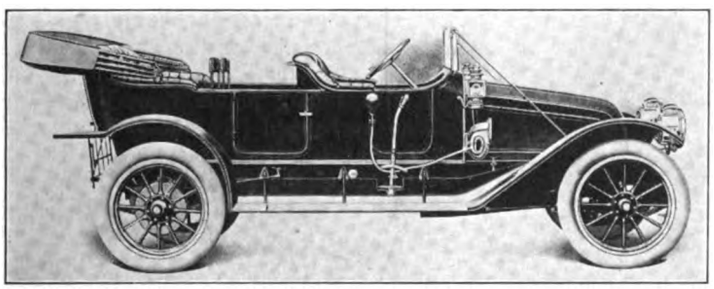
With these exceptions, the points which have rendered Franklin cars so distinctive are retained. The unique system of air-cooling, which was introduced last year, improving upon a system which has been a Franklin standby from the very inception of the line; the use of laminated wood frames, light chassis construction throughout, full elliptic springs and exceedingly large tires in proportion to the weight carried are employed with confidence bred of several years experience. What alterations have been made for the most part are in the way of minor improvements.

Of the four models which constitute the new line, two are of four- and two of six-cylinder construction. They are, respectively the "H," "D," "M" and "G," and are rated at 48, 38, 25 and 18 horsepower. The six-cylinder models are built with full flush-sided bodies and are of the true torpedo type, while the two smaller models, though equipped with high-sided bodies and front doors, are more nearly of conventional pattern.

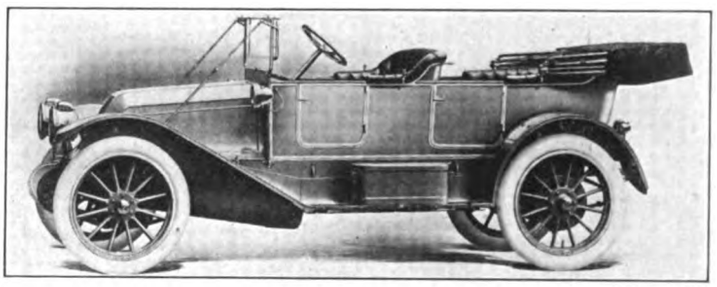
Longer wheel bases prevail, as compared with the models which have been produced hitherto, the specifications now obtaining being, in the sequence already employed, 133, 122¾, 107½ and 99⅝ inches. The four wheel base lengths of the previous models were 127, 106, 100 and 91½ inches, respectively. This elongation of the chassis provides for a considerably increased amount of foot room and for more ample body construction in general, also considerably enhancing the appearance of the cars. Tire sizes also have been increased. On the "H" cars, 37 by 5 and 38 by 5½ inch equipment is used on the front and rear wheels, 36 by 4½ and 37 by 5 on the "D," 34 by 4 by 4½ on the "M" and 32 by 3½ by 4 on the "G."

As has been indicated the general plan of the cooling system is the same as that which was introduced last year, and which involves the employment of chimneys, or air funnels, surrounding each of the cylinders through which the cooling blast is drawn from the upper section of the bonnet space to the lower and enclosed section by the action of the special form of fan embodied in the fly wheel. One or two slight alterations have been made in the system, however. For example, the diaphragm, or dividing partition between the upper and lower sections of the bonnet enclosure has been modified to the extent of doing away with the side wings which formerly filled in between the engine deck and the frame sides. The construction of the new hood permits a tight closure to be made with the edges of the flat deck, the result being that merely raising the hood gives instant access to the entire exterior of the motor. Another and relatively slight change has been made in the construction of the fly wheel fan, while a re-shaping of its housing provides for the deflection of the heated air from the cylinder surfaces away from the under side of the foot board and thereby prevents the occupants of the front seats from feeling the heat of the motor. The arrangement also prevents the pocketing of the air underneath the floor of the car.

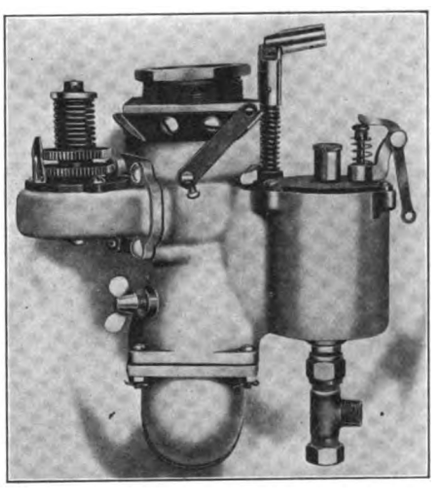
As before, the cylinders are provided



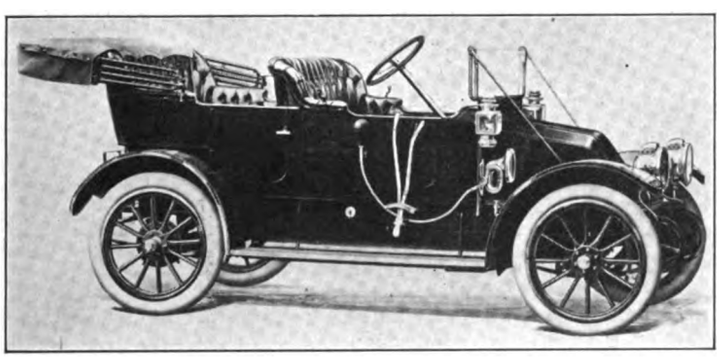
FRANKLIN MODEL "H" NEW STYLE BODY



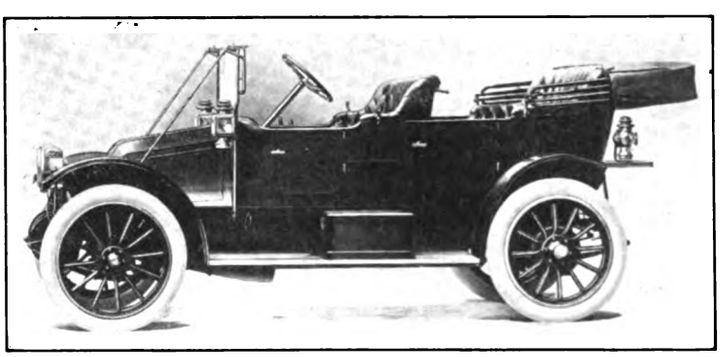
DOUBLE TORPEDO-PHAETON MODEL "D"



NEW FRANKLIN CARBURETTER



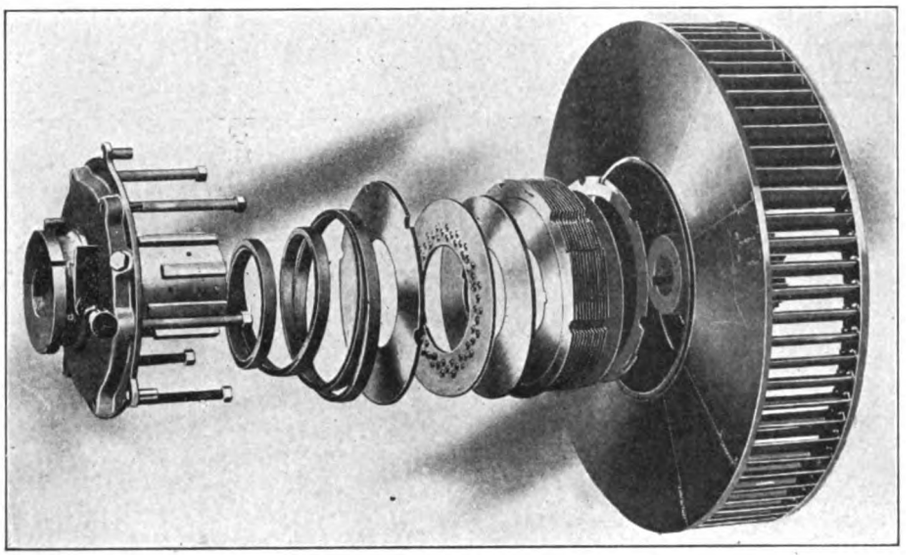
MODEL "G" 18 HORSEPOWER TOURING CAR



MODEL "M" 25 HORSEPOWER TOURING CAR

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with vertical cooling flanges, which extend outwardly to meet the walls of the cooling chimneys. Owing to the nature of the construction all of the cylinders receive an equal amount of cooling effect, and the amount of cooling always is proportional to the speed of the motor. Another noteworthy feature of the arrangement is that the cooling effect is uniform on all sides of the cylinders.



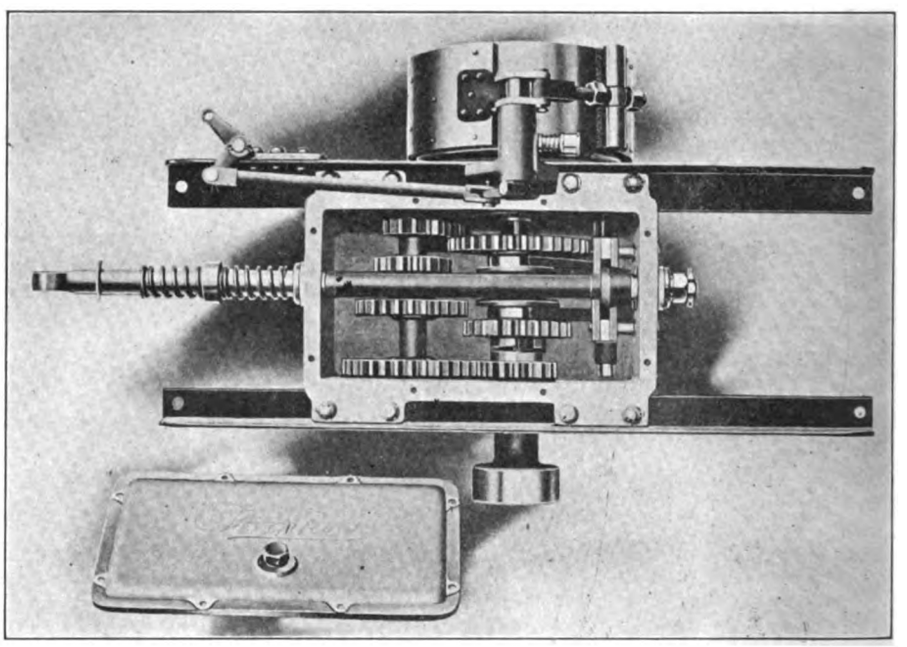
FRANKLIN FLY WHEEL FAN AND CLUTCH ASSEMBLAGE

The new valve arrangement is claimed to afford particularly silent operation, and to render access to these vital parts extremely easy. Although the concentric arrangement of the valves has been abandoned, reliance still is placed on the use of double exhaust outlets, the main release being at the side of the cylinder and at the end of its stroke. Fully 70 per cent. of the exhaust is removed in this way before the piston commences its ascent on the exhaust stroke proper, so that adequate time is given for the cylinder to be cooled before the entrance of a fresh charge after the burned gases have been disposed of.

The cylinder dimensions chosen for the four models are, respectively, 4½ by 4½ inches, 4 by 4, 4 by 4 and 3⅜ by 4 inches, bore and stroke. These are new dimensions, with the exception of those applied to the small four cylinder car, and they also represent the adoption of the "square" type of cylinder.

Another new feature is the oiling system, which combines the advantages of the splash and constant-feed force pump systems. Oil is fed into the engine base through a duct formed in the crank shaft and is supplied from a force feed lubricator. The manner in which it reaches the connecting rod bearings is unusual, however. It first is delivered to cups on the internal crank case bearings, whence it runs directly onto the shaft through a groove and thence through a hole in the shaft, which extends through to the connecting rod ends. It is fed to the bearing surfaces on the rods by centrifugal force, the overflow falling to the base, where it is collected and splashed up to the bottoms of the pistons.

The six cylinder models are provided with a new type of carburetter, which has an auxiliary air provision having a double spring controlling arrangement. By the progressive opening of the valves as first one and then the other of the springs yields to increasing pressure, the quality of the mixture is held sensibly constant. Another feature of the new carburetter is a "mixing valve," which is intended to enable the operator to temper the air supply, mixing with air drawn from the atmosphere just enough hot air to produce rapid vaporization and mixing of the components of the gas.



CHANGE GEAR SHOWING NEW SERVICE BRAKE LINKAGE

A new type of "endless" suction pipe is employed on all models, as is a vertical form of exhaust pipe which is new. Single ignition still is a feature with Bosch high tension magneto equipment. On the 18 horsepower machine the set spark arrangement is used, but on all the other models an improved form of spark governor is used; the six cylinder engines having a double spring pattern which affords very sensitive regulation. The sizes also have an accelerator pedal for control purposes which interconnects with the hand throttle.

The clutch is of the multiple disc pattern and identical with that formerly employed. The change gear, which is of the selective sliding pinion type, likewise remains unchanged. In the linkage of the service brake, which is applied to the forward end of the propeller shaft, however, a slight improvement has been made. On all but the smallest car a new type of spring perch, brake carrier and ball bearing retainer combined in a single piece has been applied.

Electric lights as standard equipment on the sixes, with storage batteries carried under the rear seat; simplified steering columns on all models, ventilated dash boards, four-way gasolene valves providing an outlet to the tank when it is desired to drain it; and newly designed mud guards, lamps, tops, mufflers and luggage carriers are other points wherein changes of greater or less importance have been made. In this connection the new construction which has been adopted for the running boards is noteworthy. They are made with a half-inch opening in the middle to allow for expansion. The break is covered with linoleum above and protected by sheet metal below, however, so that no opening is discernable.

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## WHY "FRIEGHT" AND "PASSENGER"

**Joyce Gives His Reasons for Favoring those Designations—Believes they Ultimately will Lead to Simplification.**

"I am not the author of the suggestion that we follow railroad practice and classify automobiles as freight and passenger cars," a few days since said James Joyce, manager of the American Locomotive Co.'s automobile department, "but the subject is one in which I am deeply interested and one it will be well to have discussed. It readily will be conceded that there has been great laxity and abuse in the application of automobile names. The confusion is becoming seriously awkward, and the time has come when an effort should be made by manufacturers and owners to keep in use the simplest and most fitting names. If the proper names are agreed upon and all will work together, this can readily be done. I have heard of men almost quarreling over the question of whether a certain car had on it a miniature tonneau, baby tonneau, toy tonneau, or runabout body. That, however, is trifling compared with the need for generic names for the broad division of automobiles.

"With the development of the motor vehicle in many different forms for carrying merchandise it must be recognized that it is becoming important to have in general use some classifying names to discriminate the vehicle used for hauling goods from that used for passengers The designations that have sprung into common use are 'commercial vehicles' and 'pleasure cars.' While one says 'commercial vehicle,' however, another says 'motor truck," another 'power wagon,' then another 'gasolene truck,' or 'electric truck' and so forth. Of the first two names, 'commercial vehicle' and 'pleasure car,' it is agreed that neither is adequate or desirable; both are vague and ill-fitting. The term 'pleasure cars' covers in a way the various species of touring cars, town cars, toy tonneaus, runabouts, etc., but as a generic name, it is decidedly objectionable, being too suggestive of 'joy riding' and other such frivolities.

"The expression 'commercial vehicle' does not afford a sufficient antithesis to any of the names applied to the motor cars used for individual transportation, and, besides, the term is far too loose a one; it applies quite as properly to a mule-drawn dray and a freight packet as it does to an automobile; again, it is too cumbersome. Personally, I would be in favor of the expression 'motor truck' to cover the whole range of motor vehicles used for hauling goods. The term is concise, euphonious and descriptive. Under this caption would come all the varieties of delivery wagons, vans, lorrys, drays, etc., the same as there are now touring cars, limousines, etc., under the head of 'pleasure car.' The etymology of the word 'truck' and its general usage justifies its employment in this broad sense. The expression is now quite commonly used for the heavier vehicles, and if everyone interested began to employ it as the generic term for all merchandise carrying vehicles, referring to a 'thousand pound truck,' as well as to a 'five-ton truck,' it would soon be adopted. There is no sense in bucking the tide in this matter, but the wise thing to do will be to seek the path of least resistance by trying to have adopted names now in use, or others as simple and suitable as possible.

"In place of the expression 'pleasure cars' as a general term for the various runabouts, touring cars, limousines, etc., I suggest that 'passenger motor car' be substituted, though I am not seeking to have my own ideas adopted. What I most desire is to see a lively interest taken in the subject and a wholesome discussion.

"In suggesting the use of 'passenger motor car' as a generic term, I have a very definite idea that before long the first word of the phrase will be dropped, as being unnecessary to convey the proper meaning. There is excellent reason that this should be so. If we look into the origin and use of the word 'car' we will find that it carries the idea of passenger vehicle as an almost inevitable association. We get the word from the old French term, with which it is identical, but its derivation goes back to classic days when the racing and war chariots of the Romans were alternately called 'cars.' In Shakespeare we find allusion to the chariot of the sun god as 'Phoebus' car,' while the 'funeral car' of the middle ages continues in evidence on the death of royalty, or any mortuary occasion of great pomp and ceremony. Always there is associated with the word, it will be noticed, the idea of it being a personal conveyance and not a dray. Moreover, there is something of dignity and almost of majesty in the word. Therefore it is more than probable that the name 'motor car,' which forms a perfect antithesis to 'motor truck,' will eventually be found sufficient; yet it will be well to start with the expression 'passenger motor car,' in order to more effectually emphasize the distinction to those who are novitiates in the motoring field.

The word 'automobile,' which we borrowed from abroad, as we did 'motor car,' can be retained to embrace all classes of motor vehicles. But let us have a full discussion and an agreement upon which are the names most fitting, then a hearty cooperation toward having them generally used."

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"The A B C of Electricity." Price, 50c. The Motor World Publishing Co., 154 Nassau street, New York City.

## FUTURE PROFITS IN ACCESSORIES

**Price Maintenance Differences that will Affect the Trade—Growing Distinction is Observed Between Two Classes.**

Motor car accessories are undergoing a division into two major classes in relation to their being profitable or unprofitable for the trade to handle, according to a trade observer who has been keeping a watchful eye on the trend of events. This division, he declares, is growing more distinct as more accessory manufacturers become active in maintaining prices, and as patent matters in the accessory trade assume more definite form instead of being in the nebulous and confused state. Jobbers and dealers, in conscious or unconscious recognition of the improvements that are being brought about, are less inclined to bristle with indignant opposition against manufacturers' selling restrictions and requirements.

"Lacking some strong selling policy behind it, any automobile accessory is almost doomed to degenerate into a common piece of hardware or junk, worth little more than the materials that compose it and lacking the magic of profit-making for those who handle it," the trade observer declares. "At the present time all the accessories on the market are being forced into one of two divisions, which means that ultimately they must be classed with the specialized profit makers or with the general run of competitive price goods that are sold only on the basis of cheapness and which involve a trimming of profits to the barest possible margin.

"In some respects," he maintains, "the accessory end of the automobile business enjoys a great many advantages over the manufacture and sale of cars. The car manufacturers do all the pioneer work in making converts to the automobile, and the keener their competition, the more customers they create for the accessory manufacturer. Furthermore, many accessories are of a kind that by their nature and service must wear out and be renewed a number of times during the life of a car, giving the accessory manufacturer repeated sales as against single sales for the car maker.

"Things have been so flourishing with the accessory trade that almost anybody who could produce a good usable article in sufficient quantities and could make prompt deliveries, could get a profitable price for his stuff. It might not be as much as he at first would try to get, but it would be a mighty good price at that, and the dealers and jobbers, despite some cutting among themselves, would make a respectable profit. The overwhelming demand, after absorbing all the top-notch price-restricted goods, has been powerful enough to sustain prices for purely competitive goods

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even where the latter have been unaided by patents, by advertising or by unusual merit or reputation. The excellent prices which the makers of the latter class of accessories have received have been chiefly a reward for their enterprise in actually having goods to deliver at a time when the demand for everything in the accessory line was disproportionately big for the supply.

"There have been a few cases of accessory manufacturers who have gone broke in producing large quantities of stuff for which there was no subsequent demand, but such instances have been remarkably rare, everything considered. Now, however, the production of accessories is increasing at such a rate that in the aggregate it gradually is overtaking the still increasing demand, and it does not take an occult seer to foresee that things are reaching a point where a lot of these accessories will be thrown into competition on price alone, and will be handled only on that basis.

"Those who have had any experience know that there is a whole lot of difference between handling goods with a sustained price and generous profit margin, and in handling goods where the price and profit are shaved down to the minimum of what competitors will do business on. All the fun of price cutting so far has been in the fact that even with the cutting there has been a good margin of profit to play on, but there is no pleasure in getting business away from the other fellow if one doesn't make a profit in it.

"Many of the jobbers now welcome anybody who can make a showing that indicates his power to control any given line of accessories, because such control will make possible an insuring of profits to those who handle the goods. One jobber told me that in the past he has spent a fortune in fighting so-called basic patents for various lines of goods and in resisting the efforts of manufacturers to dictate fixed prices, but that he now regards his policy as a mistake and is only too happy to see prices maintained by patent control.

"When the manufacturers for any particular line are able to fix prices, to punish and cut off price cutters, and to insure the profit of the jobbers and dealers who handle the goods, their products are of the kind that the trade will take pleasure in selling, as against the goods where nobody knows what the bottom price is and which represents the scantiest profit possible. This distinction between the two classes is becoming apparent, and is sure to be a big factor in determining the success or failure of a majority of the accessory manufacturers in the future."

### Remarkable Records of Factory Drivers.

One of the requirements in New York's new motor car law is that every chauffeur must answer a list of questions promulgated by the state. These bear on his personal habits as well as his driving history, and an examination of any good sized collection of application papers brings out some interesting facts. Recently forty-five applications were forwarded to Albany from Buffalo for men in the employ of the Pierce-Arrow Motor Car Co. That continuity of employment is more than a catch phrase at the Pierce-Arrow factory is shown by the fact that of the 45 men 33 of them have been with the company more than five years.

Some remarkable mileage has been piled up by the 45 men. Their total mileage as given in the applications for licenses is 1,943,000 miles, an average of 43,177 miles each. Seven of them have driven 100,000 miles or over, and two, being long-time members of the testing brigade, have piloted cars over more than 250,000 miles. Most remarkable of all is the fact that despite the length of time the 45 have been driving, but three of them have been arrested for speeding, and there have been but two serious accidents, an average of one arrest for every 623,866 miles and one accident for every 971,500 miles. In both accidents the drivers of the cars were held absolutely blameless and were not even arrested.

### Fine Rumpus Follows Garage Deal.

The paying of a month's rent in advance, and subsequent refusal to sign a lease, stirred up a lot of trouble, with warrants, arrests and injunctions as accompaniments, in the little town of Ellenville, N. Y. Milton Van Keuren, who sought to lease the Wayside Inn garage, and Oscar O. Krause, owner of the garage, were the men concerned. Van Keuren paid one month's rent in advance, but when the lease was drawn he refused to sign it on account of some objectionable terms included in it. Krause then called off the deal and ordered Van Keuren and his workmen out of the garage. They refused to go, and soon after Van Keuren left town with his family for a short vacation. While he was away Krause chased the workmen out of the place. When Van Keuren returned and found what had been done, he made forcible entry into the garage, breaking locks and doors. For this Krause secured a warrant of arrest and cited him before Judge Jollie. When the officers appeared with the warrant at the Wayside Garage, Van Keuren ordered them off the premises and they went. Krause then obtained an injunction from Justice Betts restraining Van Keuren from again attempting to enter the garage, and installed himself in full possession of the garage, conducting the business as if nothing had happened. The case will be decided in the courts during the next month, but in the meantime Van Keuren is out a month's rent for a place which he did not occupy.

### Book that Deals with Lubrication.

"While it is not realized by the automobile owners in general, it is none the less a fact that most of the troubles that send a car to the repair shop have their beginnings in defective lubrication." So truthfully exclaims the Vacuum Oil Co., Rochester, N. Y., in a fine new booklet entitled "What the Motorist Should Know." The text is followed by a concise and lucid explanation of the origin of all the commoner lubrication troubles and how they may be remedied. And in the appendix timid motorists will find the names of their own cars tabulated, along with those of practically every other machine now extant, and recommendations as to the proper grades of Vacuum Mobiloils and greases which they should use in both winter and summer.

### Bridgeporters Block Garage Building.

By the rapid "railroading" of an ordinance through the city council in Bridgeport, Conn., a number of property owners on Fairfield avenue temporarily have prevented the building of a big garage by the Eddy-Sherwood Carriage & Motor Co., although the ordinance also has the larger effect which prevents the construction of any garage in the city without the consent of property owners within 200 feet of the site. The Eddy-Sherwood company recently purchased land on Fairfield avenue, between Hancock and Butler avenues, but adjoining property holders objected. The building permit was held up until the property owners could persuade the council to a hurried passage of the ordinance granting them the desired protection.

### Westchester Bankers now Whack Cars.

Imitating some of the small country bankers of the West, the members of the Westchester Bankers' Association, who guide the destinies of the small banks in Westchester county, New York state, just above New York City, have decided to use extreme caution in discounting notes for customers who want to get money to buy automobiles. In session at the Briarcliff hotel, at Briarcliff Manor, they affected to discover that the country is more or less "automobile crazy," and that it is the function of the bankers to check rash extravagance in this direction so far as lies in their power. Of course no one believes that the Westchester bankers would even try to do anything to divert money to Wall street.

### One Cause of Noisy Clutches.

In certain types of leather-faced cone clutch, disengagement is accomplished by means of a yoke fitting into a collar on the clutch member, friction between the yoke and collar supposedly being prevented by means of two or more tiny rollers of fiber or metal. When these rollers become much worn, however, they frequently defeat their purpose to a partial degree, and become the source of considerable noise. The remedy, of course, is to fit new rollers as soon as the old ones become so much worn as to rattle or cause the clutch to bind by exerting an unequal drag upon the opposite sides of the flange.

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## PLOTTING WIND SHIELD DRAUGHTS

### Tests that Indicate the Best Proportions and Placing for the Screens—Reactionary Swirl Effects.

In view of the inconvenient and objectionable nature of the back draughts which so frequently are caused by the use of wind shields, it is interesting to learn that by careful study of the subject and the due proportioning of the screens to suit the form and dimensions of the car much of this drawback can be eliminated. Such, at least, is the conclusion reached by a foreign investigator who has carried out a series of experiments with the aid of single and double screen arrangements variously placed upon a test car.

As was the case when the subjects of wind resistance and the dust raising propensities of different body shapes were investigated, has been found that natural

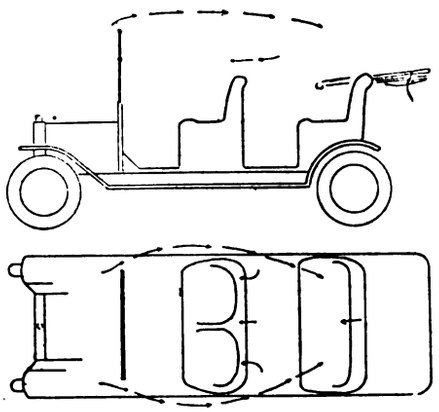


Fig. 1

winds are of very great consequence in their effects upon the draughts within the car. At the same time, as is true of wind resistance and the following air-currents, any determinations affecting conditions when the car is driven with, against or across the wind. Therefore the study of wind shield position is shown to be of considerable importance in governing the comfort of the occupants.

In the tests in question, which were made by the Automotor Journal, of London, the investigation was confined to the use of a vertical shield in front of the type which is capable of being adjusted to two different heights by means of the folding upper section and to an adjustable screen for the rear seats. The latter was of the sort which may be placed either vertically or at an angle and either directly over the back of the front seat or further to the rear. As it is provided with three leaves, it may be stretched directly across the car or folded in such a way that the outer leaves form deflectors at the sides.

In order to observe the effects of altering the arrangement of the screens a light framework, capable of being established at different points on the car was constructed, its cross members being covered with light fringes of silk. By moving the framework about and noting the deflection of the fringe under different circumstances, it was

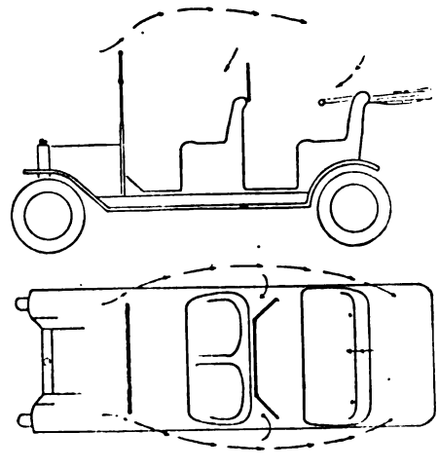


Fig. 2

possible to plot the diagrams, which are here shown, and so to determine with fair accuracy the direction of the stream lines.

In general it was found that the results obtained with the front screen in its raised and lowered positions were practically identical, save that with the upper section lowered the upper air currents were brought nearer to the body of the car than otherwise. Therefore, the diagrams shown are only those taken with the screen raised.

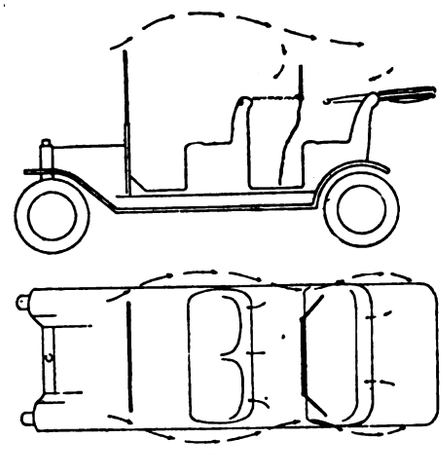


Fig. 3

Referring to the illustrations, the draught tendencies with what may be termed the standard wind shield arrangement will be seen. With the shield raised to its full height and with no rear screen, as in Fig. 1, the heads of the passengers in the rear seat are unprotected from the direct draught, while the reactionary effect serves to involve the back of the rear seat in a swirl of air, which resolves itself into a direct forward blast on the back of the heads of the driver and his companion. The plan view also shows that while the front seat is well protected at the sides, the effect of the screen does not extend for the full length of the car, but causes the ends of the rear seat to be involved in a considerable direct draught coming around the ends of the shield.

With the secondary shield erected on the back of the front seat, as shown in Fig. 2, the effect obtained, in a general way, is anything but what would be expected, or desired. As in the first case, the passengers in the rear of the car are subjected to a certain amount of back draught, though little if any from the sides, while those in front receive a down draught on their heads. Where the outer sections of the second screen are deflected slightly, the effect is to direct a draught against the ears of the occupants of the front seats, which is neither pleasant nor wholesome.

Removing the second shield to a point nearer to the faces of the rear passengers, in the arrangement shown by Fig. 3, has the effect of decreasing the intensity of the

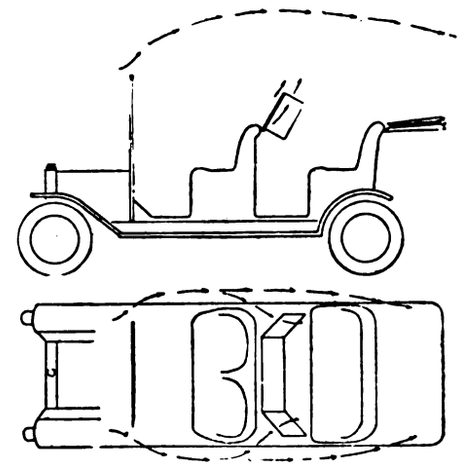


Fig. 4

draughts in the rear portion of the car, though without altering their direction materially. The draughts experienced from the front seat positions, however, are increased very materially, so that the arrangement is not one to be recommended.

Fig. 4 shows the best solution obtainable with the type of car chosen for the experiments and with the forms of wind shield used for the tests. By inclining the rear screen to the vertical and bending back the side leaves, a deflector effect is secured in both horizontal and vertical directions. The second screen here is replaced in its position on the back of the front seat, it will be observed. The conclusion reached with this arrangement is that the upward draught created by the inclined plane of the rear shield tends to neutralize the down draught caused by the front shield, thus rendering the air practically dead in the vicinity of the front seats. In the rear part of the car also the draughts appear to be minimized.

Although the effects obtained with the

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top raised are not shown in the illustrations, it is stated that the arrangement given in the last of the four diagrams also proved to be the best, whether the top was up or down. This conclusion is a natural one.

It is to be deplored that the results obtained are of such a fragmentary nature. The effects of using inclined planes on the forward as well as the rear wind shield, and of employing sectional side deflectors in front, if properly observed, doubtless would shed considerable light on the subject. In a general way, however, and particularly as showing the importance of adapting the wind shield to the exact needs of the car, the results obtained are particularly suggestive and valuable.

### Troubles Peculiar to V-Type Engines.

Engines of the V-type, though but little used in the automobile industry, are subject to one general shortcoming which is worth noting. This is manifest in a tendency for the valves on one set of cylinders to become burned and scored and for the exhaust on the same side to afford every token of excessive lubrication. This arises from the fact that, where splash lubrication is employed the tendency is for the oil to be thrown against one of the cylinders of each group in greater quantities than the other receives. Unless special provision is made in the design to guard against this tendency, there is considerable likelihood that trouble may be experienced in consequence. The obvious remedy is to arrange for baffling the cylinder which inclines to over-lubrication a little more closely than the other.

### Quick Action When Cars Roll Backward.

All the little books designed for the consumption of motoring novices carefully explain that it is necessary to learn back steering and also that when the brakes fail on a hill, the proper procedure is to turn into the nearest curb or sand bank. What sometimes is neglected in this connection is to emphasize the importance of sidetracking the car immediately it begins to roll backward, instead of making futile attempts to check its motion while it is gathering headway. The other day a driver waited too long before cutting out of the road, with the result that when he did turn out the shock of impact was sufficiently great to overturn the car.

### Heavier Lubricant to Reduce Smoke.

Smoky exhaust and carbon troubles in an old engine sometimes may be remedied by adopting a new and heavier grade of lubricant than that which regularly has been used. The thicker bodied oil will tend to form a better seal between the piston and the cylinder walls and so to prevent the escape of the lubricant into the combustion chamber and the acccompanying formation of carbon.

## LAYS A FINGER ON THE SORE SPOT

### Commentator Deals with the Annoyance of "High Financiers" at Prodigal Farmers who Buy Motor Cars.

"That the prodigal farmer is likely to ruin the country has been pointed out several times of late by persons whose names carry weight in the highest financial circles," ironically remarks the Saturday Evening Post. "'A large class of the American people are running wild in useless extravagance; they are buying several hundred million dollars' worth of automobiles annually,' said, recently, an able banker who probably owns half a dozen of those ruinous contrivances himself. He added that the farmers, whose economy had heretofore been our salvation, were now rioting in the front ranks of the wasteful crew. Another financier declared that 'the mad desire of farmers for automobiles' had lost a single Western state millions of dollars.

"No doubt, prosperity in this country has been overdone—that is, it has become so extensive that a good many of the people who create the country's wealth are now actually spending it. From the point of view of high finance that condition is dangerous; the ideal condition is one in which much wealth is produced, but its producers are unable to retain more than enough for their needs, thus leaving all superfluous spending to the manipulators of wealth, who, being comparatively few and intelligent, may be trusted to keep extravagance within safe bounds.

"Even from the point of view of high finance the situation is far from desperate. The diamond-studded, tailor-clad, touring-car farmer is pretty much a myth. A five-cent cigar is still the limit of extravagance for a majority of those who produce the country's wealth. The forthcoming census report on average farm incomes will probably cause alarmed financiers to cheer up."

### Britishers Combatting Trade Evils.

Suffering from the progressive effects of price-cutting carried on under the guise of the division of profits, bonuses and commissions and from the inroads of co-operative owners' associations formed for the purpose of cutting out the legitimate dealer, the British automobile industry is working toward an alliance which will have for its object the protection of the dealer and the maintenance of price agreements. Just how far the project has developed is not known; but it is understood to be largely defensive in its nature, while it has been said that whatever organization is affected will be shaped somewhat along the lines which have been worked out for the several manufacturers' associations maintained by the American manufacturers.

Although the trade press has not been active in expounding the cause, United States Consul Albert Halstead, of Birmingham, is authority for the statement that already many of the most important automobile and accessory manufacturers, including several large concerns in his own district, "whose combined output is probably greater than that of any equal number of manufacturing companies in the United Kingdom," have joined the association.

The association will include the representatives of manufacturers of foreign automobiles. With the object of eliminating the co-operative associations and affording means for dealing directly with price-cutters, the rules of the association, it is said, will forbid members to supply non-members at less than the full current retail price.

### Symptoms of Ball Bearing Breakage.

In the care of motor cars which are equipped with ball bearings in the mounting of the wheels, it is well to watch for signs of excessive looseness or end play. Although such bearings are not subject to derangement of this sort ordinarily, such play may be taken as good evidence of one or more broken balls or of deranged races. Such difficulties, though comparatively rare, should be taken care of at once, as they are apt to continue without outward token until the bearings are completely destroyed and possibly until the wheel is ready to come off. Because bearings of the anti-friction type ordinarily run for many months without requiring special attention, it is well to bear in mind that an occasional inspection is worth while on this account.

### Indianapolis Punishes Open Mufflers.

Following the example of several other cities and states which are conducting a campaign against open mufflers, the authorities of Indianapolis, Ind., last week took the first step towards the suppression of the nuisance in that city, when Frank Hardsock, a tester for the National Motor Vehicle Co., was haled to court and assessed $10 and costs for driving with an open muffler. In inflicting the penalty Judge Collins denounced the practice in strong terms, and said that hereafter the muffler law would be strictly enforced.

### Body with Convertible Features.

For genuine touring purposes a foreign body builder has devised a rather ingenious equipment of the high-sided order, the rear portion of which is convertible for either passenger or luggage carrying purposes. By removing the center panel of the back seat and substituting a special form of rack the entire tonneau may be used for hauling baggage or camp paraphernalia. For sleeping purposes, the backs of the divided front seats may be swung down until they join the front edge of the rear seats, thus forming a couch the full length of the body.

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## DESIGNED FOR DYNAMIC BALANCE

### Foreign Carburetter Made to Yield a Uniform Mixture by Novel Means—Its Compact Construction.

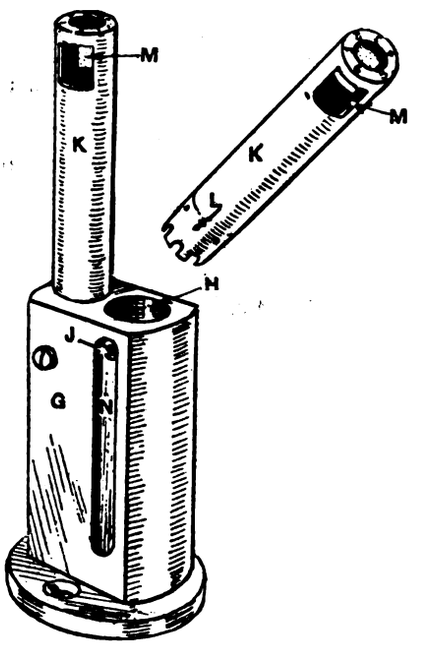
Perhaps no one point in carburetter design better illustrates the lack of harmony in the ideas of automobile engineers than does the form and location of the jet with respect to the float and mixing chambers. Revealing considerable thought, the conclusions of one of the more radical British designers are expressed in a manner at once striking and suggestive. His effort has been to attain what he calls a "dynamic balance" between the masses of fuel and air which are to be mingled within the throttle valve or vaporizing chamber. Other attempts along somewhat the same line have been made in the past but with totally different results.

Recognizing that the difference in inertia between the air, liquid fuel and fuel vapor tends to interfere with the proper handling of the gas, an effort has been made to equalize the flow by suitably graduating the length of the fuel and air inlet passages to the mixing chamber. It is claimed that a relation between the lengths and diameters of these passages has been found such that the relative proportions flowing will be constant at all times, regardless of the actual inductive effect resulting from the suction.

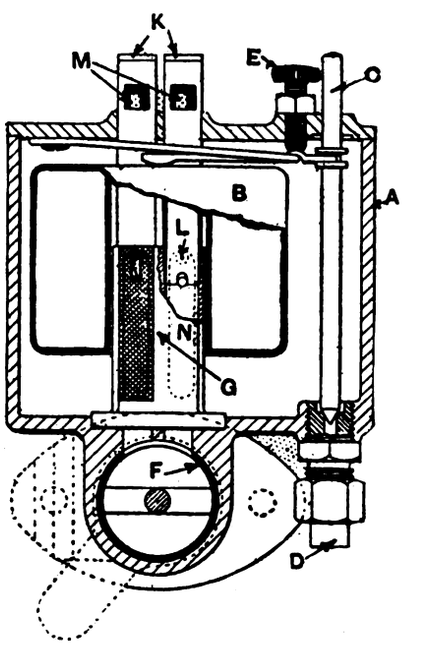
This relation is obtained by making the length of the fuel passage leading from the float chamber to the mixing passage only ⅛ inch long, while the air column, measuring from the external orifice to the point at which the mingling of the two components occurs, is 1⅝ inches in length. With this relative difference of head between the fuel and air, it is claimed that perfect balance is maintained at all times. It will be appreciated, however, that to achieve such an arrangement must necessitate rather an unusual method of construction. Such indeed, is the case, and the carburetter itself, which is known as the "Welsh" and is marketed by Thompson-Bennet, Ltd., Arden Works, Heneage street, Birmingham, is remarkable in this, as in respect to the fact that it is of double-jet construction and remarkably compact.

The device is of the concentric float type, in general construction, but is distinctive in that the mixing passages, as well as the jets, are enclosed in the tube which rises within the chamber carrying the doughnut-shaped float. Furthermore, instead of being of the upward draught type almost exclusively employed hitherto, the movement of the air and fuel is downward to the throttle valve, which is located underneath the float chamber.

The first of the accompanying illustrations, which are reproduced from the Autocar, shows the cartridge-like construction of the jet and mixing unit. The vertical mixing column G has two bores, one for each of the two jets, one of which is indicated at J, and which amounts more nearly to a small orifice in the side of the passage H than to a jet as the term ordinarily is applied. Fitted into the two passages by means of taper socket points are the two air columns K, one of which is shown partially removed in the illustration. The base of each of these tubes is formed with a series of graduated radial orifices, which form the actual jets. By turning the columns it is possible to make either of the orifices register with the opening J, thus regulating the quantity of fuel flow. By way of securing a return flow and also as a means of straining the fuel, gauze screens are stretched over the milled slots N, through which the fuel passes in entering the orifice of the jet.



SHOWING TWIN MIXING TUBES



THE WELSH CARBURETTER

Air to form the basic mixture enters through the square holes at the top of the tubes, shown at M, and passes directly downward, catching up the fuel as it wipes over the orifice and descending to the throttle chamber, which is directly beneath the float chamber, as already explained. The second of the two illustrations shows the arrangement to good advantage. From this it will be seen that the mixing column is assembled directly in the center of the float chamber, its relation to the throttle chamber and to the float mechanism being plainly apparent.

The throttle is so constructed that during the early part of its travel the base of only one of the two columns is uncovered, thus allowing but one of the two jets to act. Complete throttle opening uncovers the base of the second jet. When the throttle is set back to a point beyond that at which complete closure of the two jets is obtained, an auxiliary pure air port is uncovered, which provides means for cooling the engine while coasting and employing it as a brake, without necessitating any waste of fuel. Regulation of the fuel orifices is obtained externally without dismantling any part of the device. The regulation screw E serves to determine the fuel level and also is readily regulable to suit running conditions.

### Improvised Protectors for Burst Tires.

Tire trouble resulting from bursting shoes would be less formidable, as a rule, if the motorist would bear in mind that to devise a suitable protector for the tube after the faulty member has been repaired or replaced, by no means is a severe tax upon ingenuity. On occasion a piece of a torn inner tube, an old leather boot-leg, a piece of stout canvass, or even a soft dust-cloth folded many times and laid over the tube smoothly, have been known to do yeoman service in getting a car home or to the nearest repair shop. This, of course, where no standard repair supplies are carried in the car.

### Carriage Dealers to Put on Good Front.

With the apparent purpose of staying the general ideas that horse vehicles are on the wane or that they must give way to the automobile, the National Carriage Dealers Protective Association, which has over 4,000 members, is planning to hold the most pretentious exhibition of carriages and wagons ever held in Chicago. The exhibition is scheduled to take place at the Coliseum during the week of October 10th. The association's headquarters probably will be at the Annex.

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## FRANKLIN MANAGERS IN SESSION

**Gather at Syracuse for Annual Conference —See New Models and Demonstrations and Bravely Face the Camera.**

District managers from all the precincts of the H. H. Franklin Manufacturing Co.'s selling territory gathered in annual conclave last week for the purpose of discussing plans for the forthcoming year and also of investigating the properties of the new models which just have been announced. As is usual with such occasions, a great deal of time was devoted to the matching up of past experiences and not a little to certain festivities which commonly are supposed to cater only to the wants of the human creature, but which, as all automobile sales managers have come to know, really are stimulative to aggressive and progressive merchandising efforts.

But perhaps the most interesting and instructive part of the program was that allotted to the inspection and demonstration of the new models. That no small importance is attached to the stability and carrying capacity of the newly fledged product by the district managers the accompanying picture shows. The car that forms the basis for the solidly packed group of salesmen is one of the new little "sixes." In catalog parlance, its carrying capacity is five passengers, but the reputation of the Franklin company is staked upon it that there were no less than 29 men in the car when the picture was taken. For the benefit of those who are able to discern only 26 heads, it is explained that three of the passengers are effectively concealed in the bottom of the tonneau.

In addition to the "capacity" test, ample opportunity was afforded for each of the visitors to test the driving qualities of the new cars, a run of approximately 150 miles being made on the concluding day of the convention. The selling forces were taken by a roundabout route over the hills southeast of Syracuse, a dinner at Rexford Falls serving as a wayside incident. A demonstration of the road efficiency of the Franklin truck also was arranged, the truck, loaded to its full capacity, being driven over rough roads, up and down hill, and otherwise being subjected to sundry arduous tests, all of which, it may be added, it met to the satisfaction of its critics.




FRANKLIN SALES REPRESENTATIVES "TESTING" THE NEW LITTLE "SIX" MODEL

### Work Started on Immense Truck Plant.

Work on the new plant for the Alden Sampson Mfg. Co. in Detroit, Mich., has progressed to a point where it is announced that the entire building will be ready by September 15th, although the first 400 feet of the main building will be completed by August 10th and will be occupied immediately thereafter. The structure is to be 1,050 feet long and 150 feet wide, with cement floors and fireproof construction. Contracts also have been let for an administration building, which will be a duplicate of the office building of the Brush Runabout Co. It will be 75 x 55 feet and two stories high, the material being white pressed brick. The Detroit plant, under the direction of Morris Grabowsky, will make all the 1,000 pound and one and two-ton trucks for the company, while the heavy duty three, four and five-ton trucks will be made at the plant in Pittsfield, Mass.

### Erecting American Factory in Canada.

Actuated by the same considerations that have induced several American manufacturers of motor cars to establish branch factories in Canada, the accessory and parts makers also are taking up the matter of Canadian branch factories. The McCord Mfg. Co., of Detroit, Mich., making lubricators and other accessories, has located a branch manufacturing establishment in Walkerville, Ont., opposite Detroit, and before long will move the branch from the present leased quarters to a factory of its own.

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## MOROSS AGAIN QUITS SPEEDWAY

### This Time it May be "for Keeps"—"Gold Brick" Story Reacts on Indianapolis Director of Contests.

E. A. Moross, director of contests at the Indianapolis (Ind.) Motor Speedway since its opening nearly a year ago, has resigned again, this time for "keeps," it is said. Moross resigned several months ago to assume the management of a speedway project at Detroit, but was persuaded to withdraw his resignation and remain. Moross has not announced his future plans. It is said that his office will be abolished and that the duties of the position will be performed by a staff of directors.

Moross's resignation is the culmination of a series of long standing and frequently recurring rumors concerning an ever widening breach between himself and the speedway management regarding the conduct of his office. The rupture which brought about a severance of relations is said to have been in connection with the recent publication of the alleged theft of the gold plated silver brick which was laid by Governor Marshall at the completion of the new brick surface last spring.

It is stated that shortly before the July meeting, Moross felt that in order to boom the track properly and secure a degree of publicity in keeping with the premier position to which the establishment aspires, that a sensational bit of press agent work was essential, and laid before Carl Fisher a plan to have the gold plated brick which is securely chained in place "stolen." Fisher, so the story goes, opposed the scheme, being averse to having the impression get abroad that the Speedway management would resort to such deception and told Moross not to carry out the plan.

Shortly after the brick was "stolen," and Moross reported its loss to the police and offered a reward of $200 for its recovery. Newspaper men, however, scented a "frame up," and their suspicions were confirmed when President Fisher denied that the precious brick had been stolen. Then the scribes turned loose their vials of vocabulary on Moross and his resignation soon followed.

### Former Constable Invents New Con Game.

Having ceased to be a constable and there no longer being an opportunity for him to make money out of motorists by the "timing" method, William Bulfer, of Chicago, Ill., has taken a new means of "gathering the kale" by ostensible automobile "timing," but, unfortunately for his plans, his "Auto Timing Co., Unlimited," as he styled the enterprise, has come to grief, and he has been bound over to the grand jury on five charges of operating a confidence game. His experience as a constable evidently was such as to tempt him to the belief that he could attempt bold things in the way of misrepresentation and deception, and still "get away with it." This time it was not on motorists that he was preying, however, but on men seeking employment and whom he enlisted to wage war on automobile drivers.

As disclosed to the police, Bulfer's scheme is something akin to the "detective bureau" game by which gullible victims give anywhere from $5 to $10 for ten-cent tin badges. It has an element of newness, however, and introduces a method of operation which is only made possible by conditions arising from the use of motor cars. Several of the "employes" appeared in Judge Gemmill's court and testified that Bulfer had hired them to work for his concern, which he represented was formed for the purpose of preventing automobile speeding. He required each "employe" to deposit $10 with him as the price of a stop watch.

The men declared that they had worked at timing automobiles in the suburbs, for from one to three weeks without pay, and that when they had demanded a return of the money deposited on the stop watches they had been refused. Judge Gemmill accordingly bound Bulfer over to the grand jury under heavy bonds on the charge of being a confidence game operator.

### Lost a Finger by Waving His Hand.

Something new in automobile accidents was provided when Louis Silverman waved his hand cheerily to an automobile that was passing him as he crossed Church street, in Hartford, Conn. The car was very close to Silverman, and when he waved he felt a twinge of pain in his hand. His cry of pain stopped the driver of the car, and when Silverman was asked what was the matter, he inquired indignantly where his forefinger was, as it was missing from his hand. A careful search disclosed the finger resting comfortably in the frame which supports the top. Silverman was given a free ride to a doctor's office, where the remnant of his finger was amputated and the hand dressed, after which the motorist and the victim of the accident were escorted to the police station. Silverman refused to make any complaint against the driver of the car, and the police captain decided no one was to blame. Upon being released, the motorist made haste to continue his journey.

### Another Matinee at Brighton Beach.

Encouraged by the success of its matinee at Brighton Beach on Saturday, 23rd inst., at least from a box office standpoint, the Motor Racing Association has announced another function of the sort for Saturday, August 13th. The program is being arranged and it is likely that a return match between Robertson and DePalma will be the headliner on the card.

## CHAMPIONS ONE-EYED DRIVERS

### Secretary Koenig Approves the Application of a Chauffeur with a Missing Optic —His Sage Decision.

When a man desires to run an automobile as an employe or for hire, and happens to be woozy in one eye, it may help his case if he removes the affected eye and salts it away or wears a blinder. At least that is the idea conveyed by the decision made by Secretary of State Koenig, regarding the case of a one-eyed would-be chauffeur. Mr. Koenig, whose knowledge of everything pertaining to driving automobiles is superlative, unquestioned and unapproachable, declares that a missing eye is no hindrance to an applicant's becoming a chauffeur. In fact, he almost suggests that it is an advantage.

One who is so afflicted desired a license, and as none of Koenig's political camp followers, who are posing as examiners of chauffeurs, felt competent to deal with the problem, it was passed up to the wise and learned secretary himself, and he made short work of it.

In the sage decision which he handed down, he says:

"All marksmen in order to attain as much accuracy as it is possible for a human being to attain when shooting always close one eye. Civil engineers, in using a transit of running lines in grades and levels, always have one eye closed. One good eye is better than two defective eyes, and also better than one good eye and one defective eye.

"My interpretation of the law leads me to the conclusion that because a man has only one eye he should not be barred from making his living as a licensed chauffeur in New York or any other state. The chauffeur from Long Island has one perfect eye. He undoubtedly can see better than hundreds of drivers who have two eyes. I know many men who are blessed with full eyesight whose vision is not as clear as that of some men who have only one eye.

"The Long Island chauffeur earns his livelihood by driving an automobile. He undoubtedly is a careful driver. He knows that unless he is he will not be allowed to run a car. Therefore he takes extra precaution and with his one eye he is cautious at all times, looking out for the safety of the public.

"It is a well known fact that a person with but one arm and by the exercise of that arm attains far more strength in it than he would have if he possessed the use of both. So it is with a man with one eye. His sense of sight becomes more acute by the constant exercise of the lone eye than it would be if he had two eyes and either one was defective. I shall grant this man a permit."

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**New Clubs Formed in Many Places.**

Motorists of Milwaukee, Racine and Kenosha, Wis., have formed the Tri-City Good Roads Club for the purpose of keeping the roads between the three cities in perfect condition. Three thousand dollars annually are to be spent in the work.

With 25 charter members the Elwood City Auto Club has been organized in the Pennsylvania city of that name. Its officers are: President, A. C. Frey; vice-president, C. F. Buchanan; secretary, E. A. Mulcahy; treasurer, J. W. Offcutt.

The Ocean City (N. J.) Automobile Club has been formed with the following officers: President, George W. Shuster; first vice-president, Albert Fogg; second vice-president, Edward Sutton; secretary, Albert Kline; treasurer, Dr. I. N. Griscom.

The Kenton County Automobile Club is the title of a new organization formed in Cincinnati, Ohio, with the following officers: President, E. H. Croninger; vice-president, Wm. A. Kaiper; secretary, Dr. W. Wyman; treasurer, Benj. A. Adams.

The automobile owners of Ashland, Wis., have organized the Ashland Auto Club and elected the following officers for the ensuing year: President, Dr. W. T. Rinehart; vice-president, Dr. J. M. Dodd; secretary, Dr. F. X. Schlecht; treasurer, Roy Prince.

The Houston (Tex.) Motor Club has been formed with these officers: President, J. S. Bonner; vice-president, G. J. Palmer; secretary, Harvey T. D. Wilson. The directors include, beside the officers: H. C. Mosehart, E. E. Githrie, Will Jones, David F. Burks.

Fifteen of the leading automobile owners of Monmouth, Ill., have organized the Monmouth Auto Club, and elected officers for the first year as follows: President, R. Murdock; secretary, I. F. Dains. Executive committee: J. K. Parshall, Fred Weir and Mort Montgomery.

Under the name the Clarion Auto Club, motorists of Clarion, Iowa, have organized, and the following officers were elected for the first year: President, E. A. Alexander; vice-president, Dr. Tompkins; secretary, F. R. Austin; treasurer, M. A. Mickleson. Directors: U. B. Tracy, T. H. Crowe, D. H. Eyler.

The Augusta (Ga.) Outing Club has elected the following officers for the ensuing year: President, Chas. O. Heckart; secretary and treasurer, Tom L. Gardner; directors, A. S. Fitzhugh, Jont Heroldson and Dr. V. Wiley. The club will construct at its own cost two miles of high-class automobile road through the White River bottom.

**Automobiles "Rob" European Railways.**

According to a cable from Paris the continental trains de luxe which run to the summer resorts are running half empty, the reason being that the wealthy travelers who formerly patronized the railroads now are using motor cars for getting about. It is said furthermore that not only are the elite trains thus affected, but the increased use of motor cars for continental touring has resulted in the taking off of many of the special cars on the regular trains.

**Big Program for Algonquin Hill Climb.**

Seekers for peace and quiet will do well to give the town of Algonquin, Ill., a wide berth on August 11th, for on that day the Chicago Motor Club is coming to town to hold its annual twin hill climb, and with 24 numbers on the card it goes without saying that the Windy City motorists will stir things up quite vigorously. Entry blanks for the annual red letter function in Algonquin's orbit have been issued, and disclose a wide range of events in which practically all classes of cars are provided for. As usual, the formula division, which is an annual feature of the club's climbs, is retained, and together with a straight time calculation will be used to evolve the winners in the seven price divisions. This really is a double header event, with separate awards under both time and formula divisions.

The piston displacement classes for stock cars are well provided for, six events being set aside for them, and this year the big guns which heretofore have had to confine themselves to the free-for-all for lack of provision in the displacement contingent, are taken care of with a class for cars between 601-750 cubic inches. These events will be decided on a straight time basis. Weight and displacement combined will determine the starters in two classes, the one being open to cars not exceeding 300 cubic inches displacement and 1,700 pounds minimum weight, and the other admitting machines up to 600 cubic inches and a minimum weight of 2,300 pounds.

Electrics were not forgotten in making up the card, one class being set aside for them, while the free-for-all with the Algonquin cup as the reward, naturally will form the stellar number.

This year there are no separate classes for amateurs, but to avoid making this omission appear like a retrogression, the committee has provided medals for the fastest amateur time in any event in which there are at least three simon pures at the wheel.

**Seven Mile Wisconsin Speedway Project.**

Hoping to enlist the aid of the two terminal cities and intermediate towns in financing the project, motorists of Manitowoc and Two Rivers, Wis., are projecting a speedway to connect the two places. The cities are seven miles apart and are connected by a sand road along the bluffs of Lake Michigan. If the enterprise materializes it will be kept under club control for occasional race meets.

**Fairmount Park Race Plans Maturing.**

With $6,500 in prizes already offered and good prospects for several thousands more, the Fairmount Park 200 miles road race at Philadelphia on Saturday, October 8th, entry blanks for which made their appearance last week, should attract a classy array of talent. The blue ribbon of Pennsylvania motordom again will be a stock car contest, and will be held under the joint management of the Quaker City Motor Club and the municipal authorities of Philadelphia, this arrangement having proved mutually satisfactory in the past.

There will be three classes known as Divisions 4B, 5B and 6B respectively, which are defined by piston displacement and weight, and no cars will be allowed to compete in any class other than that to which its weight entitles it. Stock chassis having a piston displacement between 301-450 cubic inches and a minimum weight of 2,000 pounds are eligible for the first class; the second class requirements are between 451-600 cubic inches displacement and a minimum weight of 2,300 pounds, and the limit division will embrace cars between 601-750 cubic inches and weighing not less than 2,500 pounds. The carrying of dead weight as ballast is prohibited.

There will be four time prizes which are open to all classes, and are as follows: First, $2,500; second, $1,250; third, $750; fourth, $500. In addition there will be three prizes of $500 each, which will be known as division prizes and will be competed for at the same time by the cars in the respective classes. The race will start at 12 o'clock noon. The rules provide that after four cars finish, the referee, at his discretion, may declare the race over.

**Rambler Ramblers and Their Rambles.**

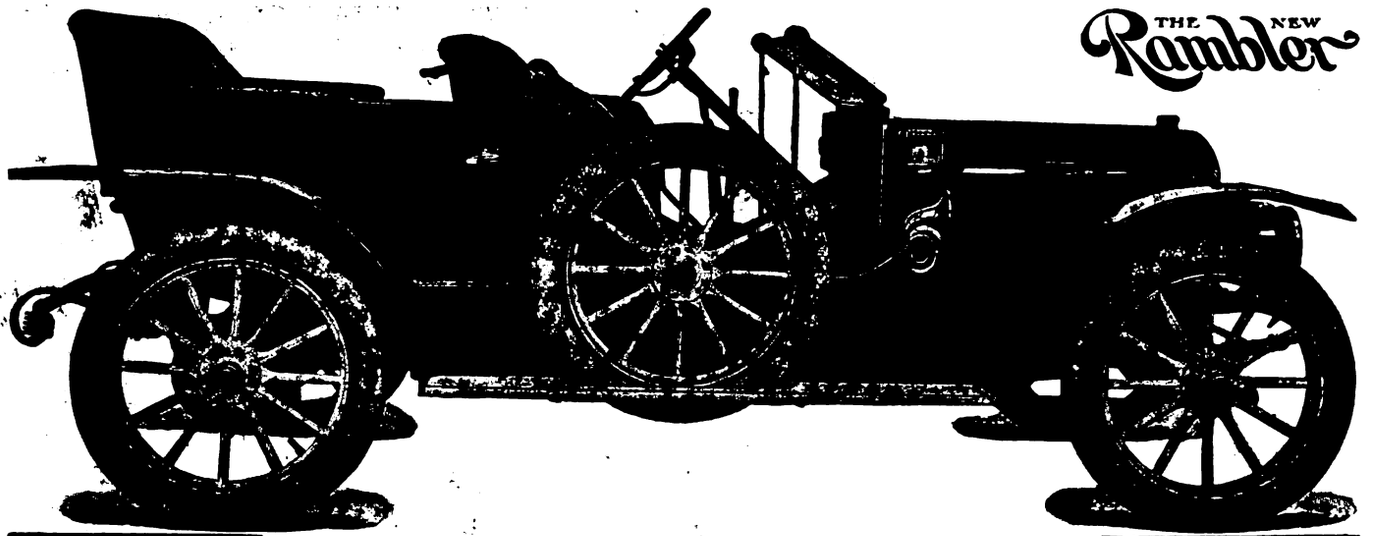
More than half the distance to the moon, or eighteen times through the earth and six times around the world—that is the remarkable record held by Ted Collier and Arthur Gardiner, two men in the employ of the T. B. Jeffery Co. at Kenosha.

Both Collier and Gardiner drove Ramblers in the first long distance endurance contest ever held in this country, that from New York to Pittsburg seven years ago.

Collier has been at the wheel practically every day of every year for the last ten, driving an average of 50 miles a day. For years he has had charge of the testing of Rambler automobiles, every one of which—aside from the engine tests on the stands in the laboratory lasting for days—is given two hundred miles of road work before it leaves the factory.

Gardiner's long distance record aggregates more than 200,000 miles, or seven-eighths of the distance to the moon. He has driven Ramblers every day of every year since the first one was made, competing successfully in a score of endurance contests and figuring prominently in the first Glidden tour ever held.

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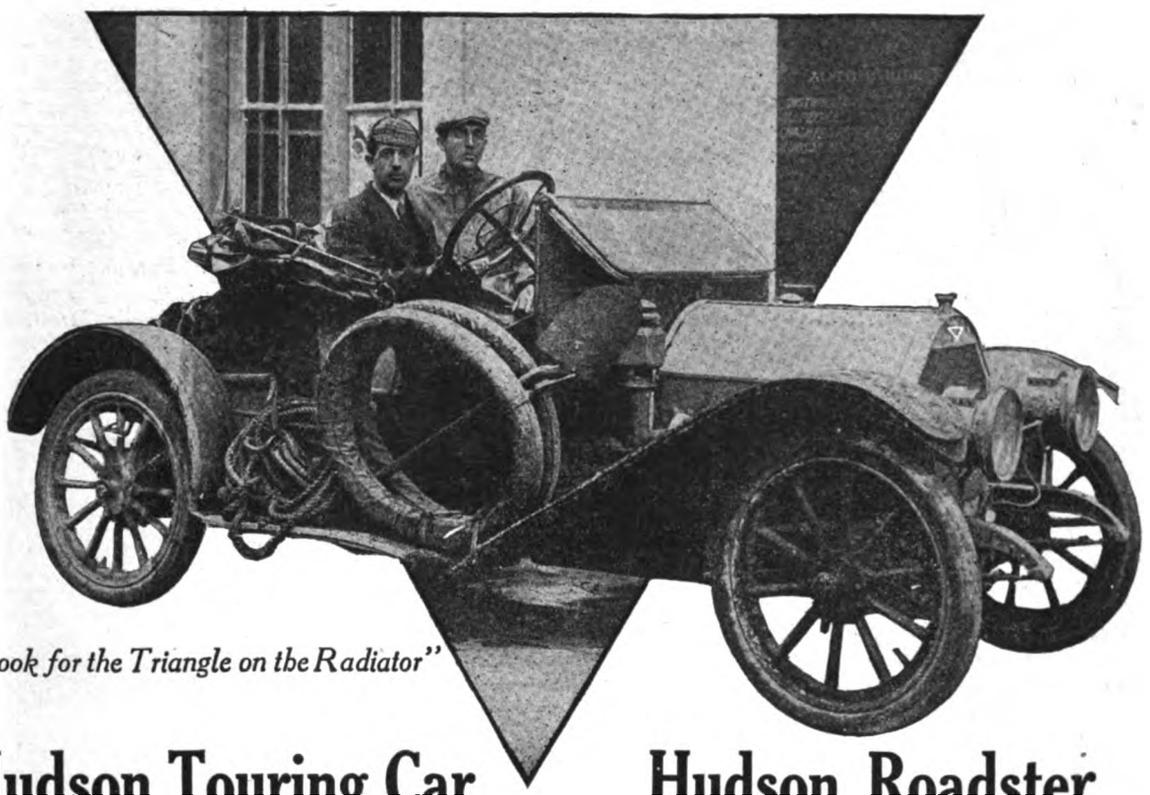
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**Hudson Motor Car Company, Detroit, Mich.**

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## RECENT PATENTS.

961,390. Means for Locking the Steering Mechanism of Motor Vehicles. Arthur B. Walters, Abilene, Kan. Fileg Aug. 21, 1909. Serial No. 513,992.

1. In a steering gear for motor vehicles, the combination with a steering shaft, of a locking sector yieldingly carried by said shaft, a pivotally held pawl, a link extending from said pawl, a pivotally secured pawl secured to said link, said pawls being held for coaction with said sector, and means to operate said pawls.

961,407. Timer. Donald W. Hare, Los Angeles, Cal. Filed Jan. 18, 1909. Serial No. 473,015.

1. In a timer, a stationary casing, terminals thereon, four segments in the casing connected with the respective terminals, said segments being staggered and each embracing more than a quarter circle, an adjusting ring revoluble in the casing, contact blocks in the adjusting ring having contact with the respective segments, a shaft, and means carried by the shaft for making contact with the respective blocks as the shaft rotates.

961,423. Carburetter. Thomas Leggett Sturtevant, Quincy, and Thomas Joseph Sturtevant, Wellesley, Mass., assignors to Sturtevant Mill Company, a Corporation of Maine. Filed July 3, 1908. Serial No. 441,858.

1. The combination with one or more carburetters or vaporizers, of a trap or well provided with a fuel discharge opening at its top and one or more openings in its side wall at a considerable distance above its bottom, so that the lower part of the chamber of the said trap or well is adapted to serve as a catch basin for surplus fuel, and a fine mesh, vertically disposed screen arranged in said chamber and opposite said opening or openings, the said trap or well providing a chamber which is independent of or additional to the mixing chamber or chambers of the carburetter or carburetters.

961,427. Pressure Regulating Device for Pneumatic Tires. Cornelius J. Brosnan, Springfield, Mass., assignor of one-half to Allen Webster, Springfield, Mass. Filed Aug. 31, 1906. Serial No. 332,810.

1. The combination, with a wheel having a pneumatic tire, an inlet valve connected with the tire, a supplementary inlet valve arranged to hold the first inlet valve open while the supplementary inlet valve is in place, an outlet valve and a spring to hold the outlet valve closed.

961,443. Tire. Reinhold Herman, Crafton, Pa. Filed July 20, 1907. Serial No. 384,799.

1. In a tire, an outer tube, a plurality of superposed wire layers wound circumferentially to the tube and embedded therein, each strand of a superposed layer being supported against lateral movement by two strands of the layer on which it is superposed.

961,481. Carburetter. William C. Carter, St. Louis, Mo. Filed Aug. 31, 1908. Serial No. 451,017.

1. A carburetter provided with a jet tube having its upper end closed and its lower end communicating with a supply of liquid fuel, said tube being provided intermediate its ends with a number of open eduction ports located at different levels, and means for causing a current of air to pass downwardly adjacent said tube so as to create a partial vacuum therein and thus cause the fuel to rise automatically in said tube and pass laterally through the ports therein, the quantity of fuel that emerges from said jet tube varying automatically.

961,553. Tire Holder and Trunk. Frederic S. Suthergreen, Manchester, Mass. Filed, Jan. 27, 1909. Serial No. 474,531.

1. A combined tire holder and trunk embodying a cylindrical body, adapted to fit within a detachable tire and provided with circumferential flanges at opposite sides which project beyond the periphery of the body, means adapting one of said flanges to be detached from the body, and a support for said holder fastened to the back thereof and to the vehicle and adapted to maintain the holder in an upright position, substantially as described.

964,559. Speed Indicator. Wesley Trafford, New York, N. Y. Filed April 8, 1904. Serial No. 202,150.

1. In a speed indicator for vehicles, the combination of an indicating device, means for actuating the indicating device to indicate a mile for each certain fractional part of a mile traveled, means for re-setting the indicating device at the end of a corresponding fractional part of an hour, whereby the indicating device is caused to indicate the average speed of the vehicle during such fractional part of an hour in terms of miles per hour, and means for indicating after the re-setting of the indicating device the speed at which the vehicle traveled during such fractional part of an hour, substantially as described.

961,590. Valve for Carburetter and Other Apparatus. Arthur E. England, Boston, Mass., assignor of one-half to James A. Yantis, Malden, Mass., and one-half to Frank P. Woodbury, and Willis Du Bois Pulver, Salem, N. H. Filed Jan. 29, 1908. Serial No. 413,475.

1. The combination, in a carburetter, of valve and two springs pressing oppositely thereon; the one spring being relatively weaker and yielding to allow opening of the valve and returning elastically to close it and the other spring being relatively stiffer and constituting a stop for the closing movement of the valve and first described spring; the relation between the springs being such that the stiffer spring is approximately incompressible by the weaker spring, forming a cushion stop for the valve but not substantially participating in the travel of the valve when the valve opens; there being means constituting a complete support for both springs adjustable in position with respect to the valve seat; and said valve being located in a passage in the carburetter, open to the suction of a motor fed by the carburetter, and the opening of the valve being actuated by said suction.

961,634. Universal Joint. Samuel C. Moorhead, Cleveland, Ohio. Filed March 24, 1909. Serial No. 485,459.

1. A universal joint comprising a central connecting member formed of two semicircular plates having ball races on opposite sides concentric with the periphery thereof, retainers carried by the plates opposite the races, shaft sections having pockets receiving the plates and having ball recesses opposite the retainers.

961,676. Speedometer. Leon E. Blanchard, Boston, Mass., assignor to Reliance Speed-Meter Company, Boston, Mass., a Corporation of Maine. Filed Nov. 24, 1909. Serial No. 529,729.

1. In an instrument of the class described, in combination, an inclosing case open at its top and provided with a removable cover therefor, a speedometer movement provided with a supporting frame located in said case, a support within the case for said frame, and a pin and socket connection between said frame and said support for centering said frame within said case, substantially as described.

961,588. Pyrophoric Igniting Device for Lamps of Cycles, Automobiles, and the like. Carl Friedr. Droll, Heidelberg, Germany. Filed June 1, 1909. Serial No. 499,297.

1. A pyrophoric ignition device for the purposes described, consisting of a tube adapted to fit an opening in the lamp casing and reflector, a pyrophoric piece located near the inner end of said tube, a friction piece located in said tube and movable therein, arranged to act upon said pyrophoric piece when operated, and means for operating said friction piece from the outer end of the tube, all of said parts being carried by said tube and removable with it and occupying a transverse area less than the area of the opening in the casing or reflector, so that they may be inserted or removed from the outside of said casing or reflector.

961,791. Chain Shield for Pneumatic Tires. La Verne W. Noyes, Chicago, Ill. Filed Oct. 26, 1905. Serial No. 284,515.

1. A chain having the links thereof pivotally connected together and provided with arc-shaped flanges having one end of the same outwardly curved on the pivot of the link as a center.

961,835. Speedometer. Dillwyn M. Bell, Oak Park, Ill., assignor to The Bastian-Blessing Company, Chicago, Ill., a Corporation of Illinois. Filed June 23, 1908. Serial No. 439,927.

1. In a device of the class described, the combination of a clock driven element adapted to travel at a constant speed in one direction, a variable speed driven element adapted to travel at a variable speed in a counter direction, and means adapted to be actuated by either of said driven elements and when so actuated to be released by the other element for indicating the speed of the variable speed element.

961,860. Foot Rest for Motor Vehicles. Russell Huff, Detroit, Mich., assignor, by mesne assignments, to Packard Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed April 16, 1906. Serial No. 312,028.

In a motor vehicle, the combination with the seat, of brackets connected with the frame of the vehicle forward of the seat, arms pivotally connected with the brackets, and a foot rest connected with and extending between the arms, said arms and foot rest being movable relatively to the seat into operative and inoperative position, the horizontal distance from the seat to the brackets being substantially equal to the length of the arms, whereby the rest may be brought close to the seat when in inoperative position, for the purpose set forth.

961,882. Wheel and Tire Therefor. George D. Moore, Worcester, Mass. Filed Nov. 15, 1907. Serial No. 402,229.

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1. The combination of a wheel, and a felly having a flange extending outwardly from one side of the felly parallel to the plane of the wheel, with a removable plate on the felly opposite said flange, said plate and flange having wide-faced projections on their inner faces extending transverse to the plane of the wheel, and a tire provided with an extension in the plane of the wheel having permanent molded cavities or depressions on opposite sides thereof for receiving said projections.

961,902. Circuit Interrupter for Electric Sparking Devices. James E. Seeley, Los Angeles, Cal., assignor to High Frequency Ignition Coil Company, Los Angeles, Cal., a Corporation of California. Filed July 8, 1909. Serial No. 506,623.

1. A circuit controlling device comprising an operating shaft, movable contact means mounted to rotate with said shaft, a movable actuating member mounted to rotate with said shaft, a member mounted to rotate through a limited angle and having cam faces engaging with the contact means and with the said actuating means to store energy in the actuating means during a portion of the rotation of said shaft and to utilize said energy in the operation of the contact means.

962,059. Adjustable Sleeve for Journal Bearings. Cephas I. Shirley, Newark, N. J., assignor to Hyatt Roller Bearing Company, Harrison, N. J., a Corporation of New Jersey. Filed May 25, 1909. Serial No. 498,161.


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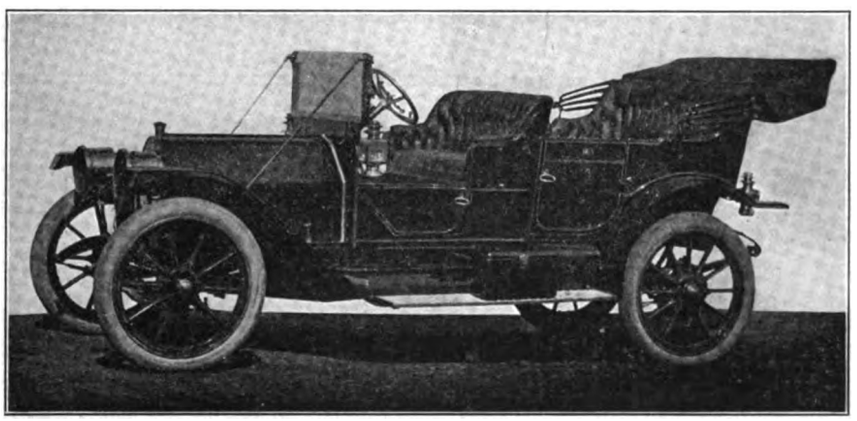
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1. The combination, with a suitable bearing, of a shaft fitted to revolve in the said bearing and having a wearing sleeve fitted to the shaft and revolving therewith in the bearing, means for holding the sleeve from rotation and end movement upon the shaft, an abutment adjacent to the bearing at one end of the sleeve, and means applied to the sleeve and to the abutment for adjusting the shaft longitudinally.

962,064. Rotary Explosive Engine. Elmer A. Thomas and William V. Ritter, St. Louis, Mo. Filed June 3, 1909. Serial No. 499,924.

1. In an explosive engine, a cylinder rotatable about a transverse axis, a mixing valve disposed about said axis on one side of the cylinder, a piston for said cylinder, a pipe conducting the mixture from the mixing valve to the outer end of the cylinder behind the piston, an exhaust pipe leading from said cylinder behind the piston, an exhaust pipe leading from said cylinder end to a point continguous to the walls of the mixing valve, valves for controlling the passages from the aforesaid pipes into the cylinder, a member having a cam-track disposed about the axis of rotation of the cylinder on the opposite side of the cylinder, a dog traversing the cam-track, intermediate connections carried by the engine between the dog and valves for actuating the latter with the rotation of the cylinder, and electric spark devices controlled by the dog in the travel of the latter along the cam track.

962,131. Internal Combustion Engine. Frederick E. Dayes, Brooklyn, N. Y. Filed May 28, 1909. Serial No. 498,983.

1. An automatic adjusting means for timers of internal combustion engines, comprising a fluid pressure driven member having positive connections through which it is adapted to effect the adjustment, a fluid pressure developing member actuated by and proportionally to the speed of the engine to be timed, supplying pressure medium to said driven member, and means for wholly relieving the pressure supplied to said driven members, during the initial speed and progressive enlarging such pressure relief as the adjustment develops.

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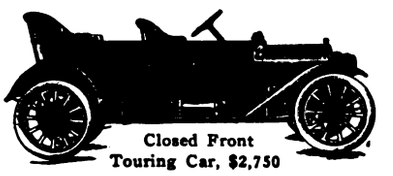
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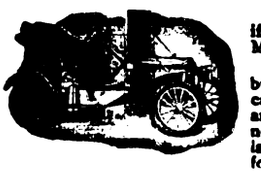
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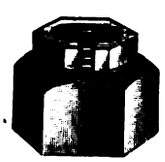
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FOR SALE—Pullman Special, 40 horsepower, 121-inch wheel base, six passenger demi-tonneau, run about 1,000 miles; bought to order late in the season of 1909 and has been stored all winter; special cloth lined top, two extra tires, tire cover, double brass tire irons, full lamp and tool equipment Bosch magneto, upholstered in full French hand buffed leather. Looks like new. Will sell at sacrifice. J. A. KLINE, General Manager, B. C. K. Motor Car Co., York, Pa.


**Stearns** The Ultimate Car
THE F. B. STEARNS CO., Cleveland, O.
*Licensed under Selden Patent*
The White Line Radiator Belongs to the Stearns.

Delivery Wagons, Trucks and Sight-Seeing Cars
THE ATTERBURY MOTOR CAR CO.
BUFFALO, N. Y.

**GILBERT** Motor Car Accessories
CATALOGUE ON REQUEST
GILBERT MFG. COMPANY
New Haven, Conn.

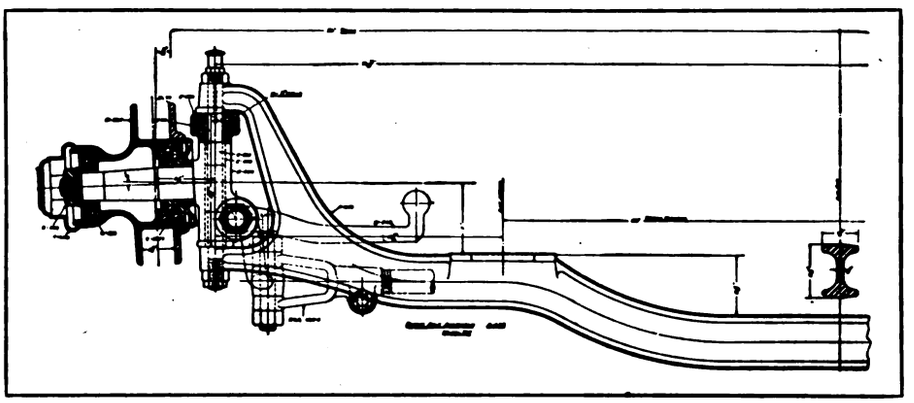
Running Board
Steel Step
**HANGERS**
THE CROSBY COMPANY, Buffalo, N.Y.

If you are interested in Motorcycles
THE BICYCLING WORLD and MOTORCYCLE REVIEW
Will Interest You. Published Every Saturday by
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# THE McCUE AXLES

HAVE you seen our one piece steel axle housing? It is unlike any other. It is made right, looks right and is right.



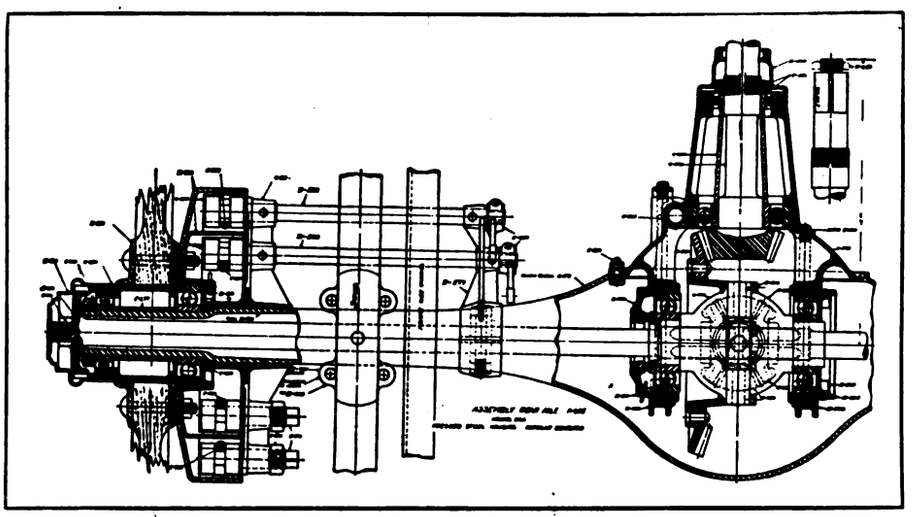
The McCue axles cost more than any others but they are worth more. Every little detail has been looked after from a car-builder's standpoint.

They have real brakes which are easily and quickly adjusted.

The drum bearing surfaces of the flanges are accurately machined. The flange bearing surfaces of the drums are likewise machined making a true running wheel possible, also permitting the use of various widths of spokes.

The pinion shaft and pinion gear are integral and are made of 3½ per cent. nickle steel.

The bearings are imported annulars and of sufficient sizes to carry the load for the weight of car for which the axles are intended with a factor of safety of ten.



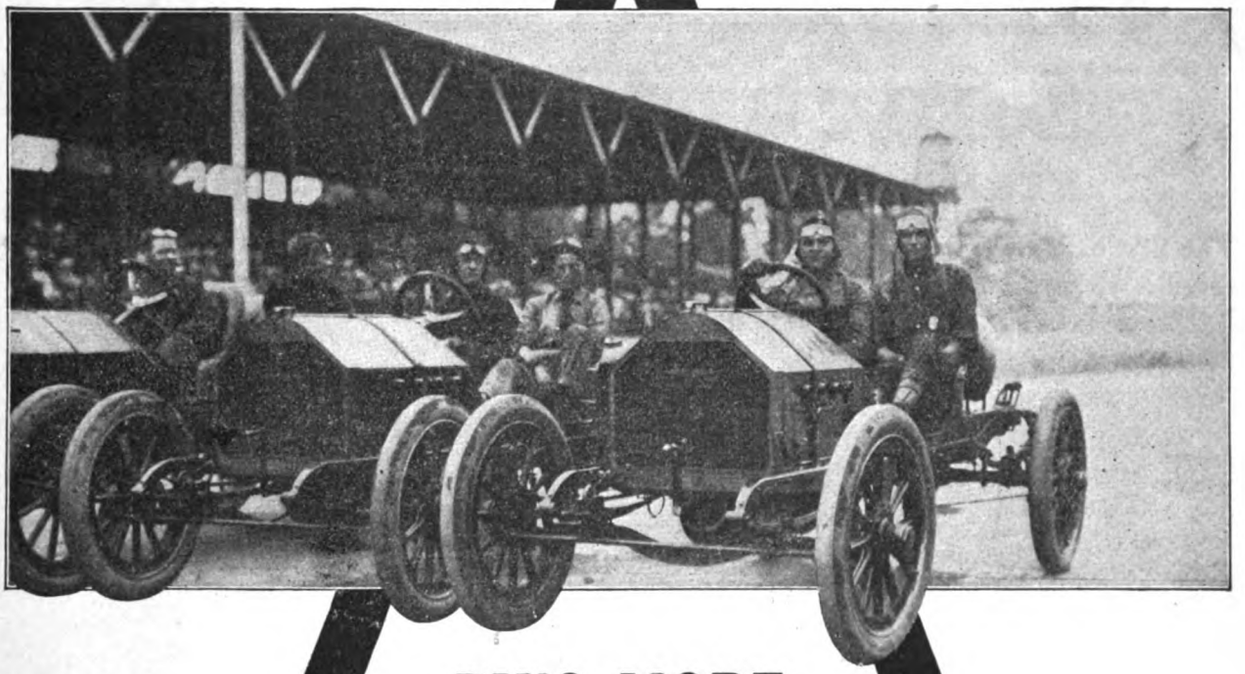
These bearings have been tested out with 100 per cent. overload for 110,000 miles and were in good usable condition at the end of the test.

We have both Mercedes and Elliott types of front axles. Let us tell you all about them. Prints and catalogues upon application.

## THE McCUE COMPANY

**Hartford, Conn.**

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# TWO MORE RECORD-BREAKING EVENTS FOR The One All-Purpose Car

Making records is no child's play in this day and age of automobile supremacy.

But that is what the Great Western is continually doing.

Friday, July 1st, in a California Race of 332 miles, with Stone driving, this car won the Chancelor and Lyons Perpetual Trophy.

The race was held over California Roads and the time of the car was nine hours and fifty-eight minutes. The time for this course previous to this was ten hours and twenty-one minutes.

The Great Western lowered the record of one way to San Diego from four hours four minutes to three hours fifty-four minutes.

In this race we defeated such cars as 6-cylinder Chadwick, 6-cylinder Winton, Apperson Jack Rabbit, Pennsylvania "50," Matheson 6, Rambler, Columbia, 6-cylinder Franklin, Corbin, Great Smith, and White Steamer.

With this array of well known, high-priced cars against it, the victory of the Great Western in this race is one worthy of the attention of automobile men everywhere. It not only demonstrates speed but it shows the real merit in Great Western Construction.

You should get better acquainted with this speedy, strong, powerful, comfortable, up-to-the-minute car.

Send to-day for illustrated catalogue and minutely detailed specifications.

**GREAT WESTERN AUTOMOBILE CO., Peru, Ind.**

Great Western
FORTY

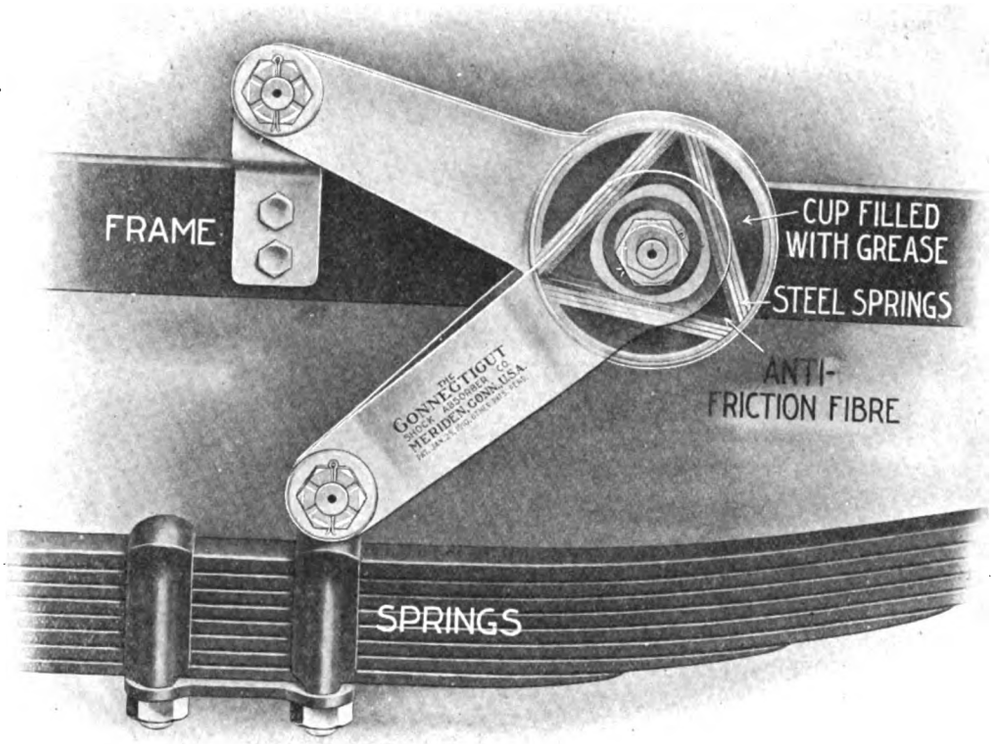
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# CONNECTICUT

# Shock Absorber

## HERE IS A REAL SHOCK ABSORBER

The first big improvement in this class of accessory. It is so far ahead of other shock absorbers, that there is little room for comparison. Once installed, does not have to be re-adjusted.




The Connecticut Shock Absorber does NOT depend on friction or hydraulic or pneumatics, but on spring action only. Is effective only during the abnormal movement of the car body, there being no braking effect on a normally smooth road—therefore does not cause car to ride uncomfortably. The working parts of the Connecticut are very simple. A three-face cam working between three sets of springs of suitable tension to give necessary resistance under all conditions.

The springs are located in a triangular position inside the cup with special bone-fibre inserted between face of cam and spring, eliminating any possibility of wear. Case packed with Non-Fluid Oil, which keeps cam and springs lubricated at all times. No dust, dirt, or water can penetrate the case. All strains come on cam and cam hubs receive no wear. Our principle of construction means that a set of Connecticut Absorbers last indefinitely..

Connecticut Shock Absorbers are sold with a guarantee—absolute satisfaction or your money back. Write us today for further information. When ordering, mention make, year and model of your car.

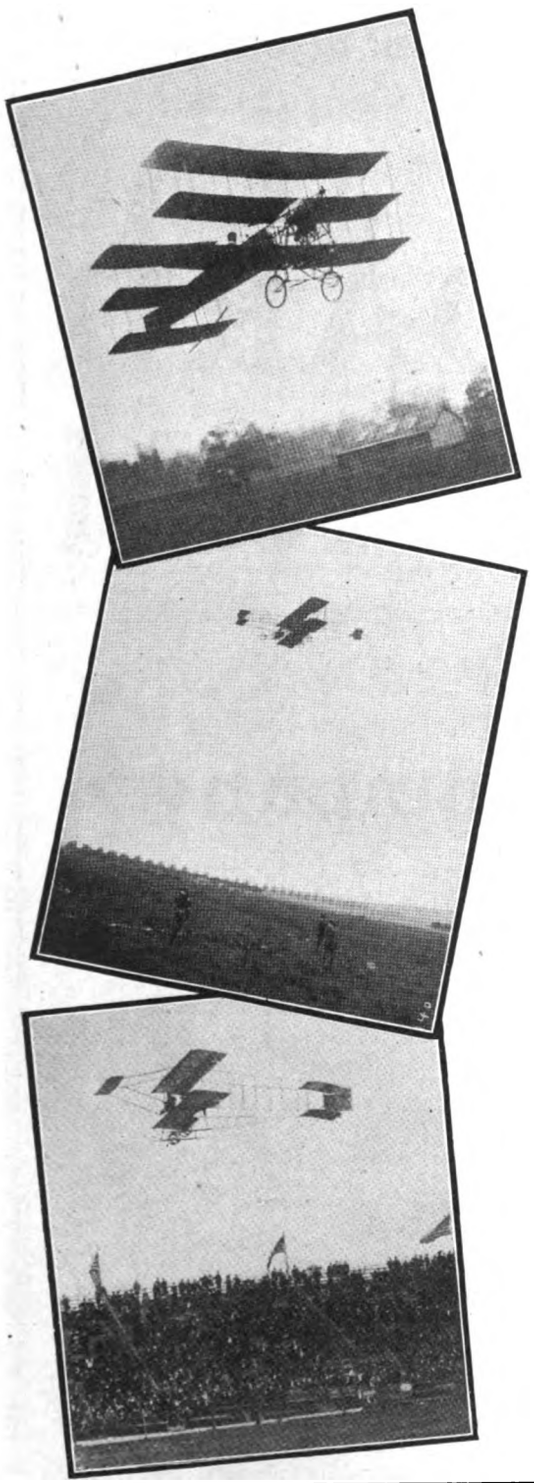
**CONNECTICUT SHOCK ABSORBER DEPT. UNITED MANUFACTURERS**
**250 West 54th Street, New York**

UNITED STANDARD EQUIPMENT MANUFACTURERS WE PROTECT THE DEALER THE OWNER AND THE U.S.


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# The Two Deciding Factors in Purchasing a Speed-Indicator

With the motorist of experience, the first of these deciding factors is absolute accuracy—for he realizes that without absolute accuracy he might as well have no speed-indicator at all. But almost as important is wearability, the power to stand indefinitely the tests of service without deterioration. For even though an instrument be accurate at the start, that accuracy is of little value unless it continues.



Such a motorist—or any motorist who investigates thoroughly—puts the Warner Auto-Meter on his car.

For he finds that the Warner Auto-Meter is the only speed-indicating device considered in important tests or races where accuracy of speed-indication is a necessity. On the cars of quality everywhere—the cars of the men who know—the Warner Auto-Meter holds the place of honor. And the accuracy which distinguishes it when it first goes on the car remains a feature of it long after an ordinary instrument would be "junk."

**The Warner Auto-Meter**

The motorist of less experience sometimes gives undue weight to price. It is true that the Warner Auto-Meter costs more. You can buy speed-indicating devices for almost any price you want to pay.

But the Warner Auto-Meter costs more solely and simply because an instrument which will give perfect service—CONTINUED perfect service—under any and all operating conditions, cannot be sold for less. And the Warner name will never go on any instrument which will not meet with perfection the hardest service tests. The verdict of the motor-wise bears out all that we say of the Warner Auto-Meter.

We should like to place in your hands a copy of our interesting booklet. Drop us a line mentioning your car, or call at our nearest branch.

## Warner Instrument Co., 947 Wheeler Avenue, Beloit, Wis.

**BRANCHES**—Atlanta, 116 Edgewood Ave.; Boston, 925 Boylston St.; Buffalo, 720 Main St.; Chicago, 2420 Michigan Ave.; Cincinnati, 807 Main St.; Cleveland, 2062 Euclid Ave.; Denver, 1518 Broadway; Detroit, 870 Woodward Ave.; Indianapolis, 330-331 N. Illinois St.; Kansas City, 1613 Grand Ave.; Los Angeles, 748 S. Olive St.; New York, 1902 Broadway; Philadelphia, 302 N. Broad St.; Pittsburg, 5940 Kirkwood St.; San Francisco, 36-38 Van Ness Ave.; Seattle, 611 E. Pike St.; St. Louis, 3923 Olive St.

**AVIATION NOTE**

The top picture is a view of the Roe triplane, an English machine, in flight. The middle photo is of Curtiss on his biplane, and the lower picture shows Paulhan flying over the grandstand at Los Angeles.

The top and bottom photos are by Edwin Levick; the one in the center is copyrighted by M. Branger, Paris.

A. P. Warner

(77)



The Aristocrat of Speed-Indicators
Ten Models—$50 to $145

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# The Dayton Motor Car Co.

## Dayton, Ohio

place the largest individual order ever given for demountable rims. All 1911 Stoddard-Dayton and Courier cars will be equipped with

# THE STANDARD UNIVERSAL RIM

MANUFACTURED BY

## The United Rim Company

### Akron, Ohio

The wholesale adoption of the Standard Universal Rim by representative automobile manufacturers is the best argument in favor of its practical and desirable demountable and quick detachable features.

# FITS ALL TIRES


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# HOMO

More Power

Less Gasoline

Steady Pull




More Speed

Less Heat

Less Vibration

**MAKES A FOUR CYLINDER RUN LIKE A SIX CYLINDER ON THE GASOLINE CONSUMED BY A TWO CYLINDER**

**THE GREATEST SCIENTIFIC ADVANCE THE GASOLINE MOTOR WORLD HAS EVER KNOWN**
**WRITE FOR DESCRIPTIVE MATTER NOW**

**GASOLINE MOTOR EFFICIENCY CC., Montgomery Street, Jersey City, N. J.**

# Splitdorf Reliability

## Again Strikingly Shown

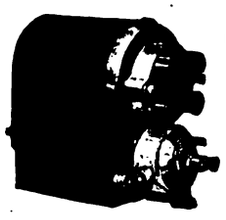
in the

## Under Three Flags

run of the Flanders car.

This sturdy little car equipped with a SPLITDORF Magneto has just finished a 4500 mile journey from Quebec to Mexico City, a run that tried to the utmost both car and equipment.

Again SPLITDORF quality has proved its claim for Endurance and Efficiency.



**C. F. SPLITDORF**
**Walton Ave. and 138th St.**
**Branch, 1979 Broadway**
**New York**




Won biggest stock car event at Atlanta, May 7—200 miles for the Atlanta Automobile Association Trophy.

Won biggest stock car event at Indianapolis Motor Speedway, May 27—100 miles for the Prest-O-Lite Trophy.

Followed these winnings with 2 firsts, 8 seconds and 3 thirds at Indianapolis Motor Speedway, July 1, 2 and 4.

National 60 won the five miles free-for-all at Indianapolis, July 2, defeating Robertson in his Simplex and a strong field of other big cars.

Won second in the twenty miles free-for-all, July 4, defeated only by special Benz.

The National 40 won the strenuous three-day St. Louis Reliability Run over 418 miles of miserable Missouri roads. Thirty started—five finished with perfect score, and of these five National received the lowest technical penalty.

No car of equal size, beauty, power and service at near the National price of **$2,500**

**National Motor Vehicle Co.** 1007 E. 22nd St. Indianapolis, Ind.

Licensed under Selden patent.


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The only quality good enough for your tires is produced by the materials and experiences that go into

# Kelly-Springfield
## Automobile Tires

"I have a pair of 4-inch Kelly-Springfield casings and inner tubes on my Packard runabout which have gone over 8,000 miles. They are in shreds, and yesterday I started on a trip into a rough country of 105 miles. I bet a dollar with our Mr. Dean that the old tires would take me through, which they did and I won the dollar.

"It is simply astonishing that they stand up this way when they really should have blown out at least 1,000 miles ago."

Yours truly, J. A. GREGG.

**Consolidated Rubber Tire Co.**
**20 Vesey Street, New York**

BRANCH OFFICES:

New York, Chicago, Philadelphia, Boston, St. Louis, Detroit, Cincinnati, San Francisco, and Akron, O.




# AS USUAL THE WINNER THE PATHFINDER
## USED
# Weed Chains

History repeats itself in every Glidden Tour. Weed Chains are used by the Glidden Contestants because they enable any automobile to negotiate every conceivable kind of road. They are absolutely necessary.

## BUT—

There are imitation Weed Chains. The Genuine — the real Weeds — the kind that positively prevent skidding have Brass Plated Cross Chains and the name "Weed" is stamped in the hooks. Don't accept a substitute.

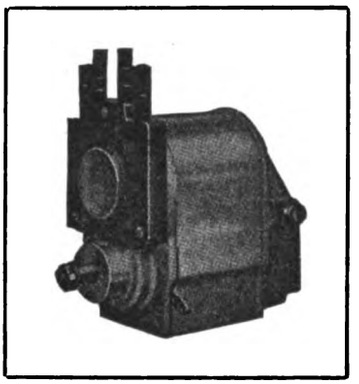
**WEED CHAIN DEPT.**
**UNITED MANUFACTURERS, Inc.**
**250 West 54th Street, New York**

UNITED STANDARD EQUIPMENT MANUFACTURERS — WE PROTECT THE DEALER, THE OWNER AND THE...




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# Pittsfield



## "Arc Flame System" Magneto

High tension, with stationary, removable coil. No moving wire on the armature. Each spark is followed by an arc flame. This arc flame will ignite a much weaker mixture than with the spark produced by the usual coil ignition. A variation of 45 degrees is allowed on the magneto shaft, which means 45 degrees in the crank shaft for a four cylinder, four cycle motor, as the magneto runs at crank shaft speed.

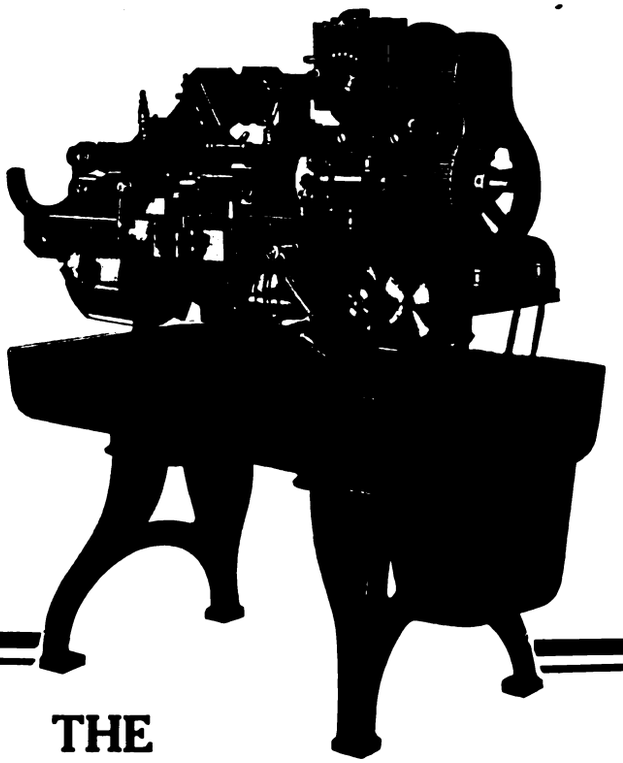
The retarded spark is just as efficient as the advanced spark, making it easy to start the motor with a quarter turn of the crank, with the timing lever fully retarded.

**Get the catalog of the "Pittsfield Ignition System"**

**Pittsfield Spark Coil Co.**

DALTON, MASS.

SALES REPRESENTATIVES—NEW ENGLAND, W. J. Connell, 36 Columbus Ave., Boston. ATLANTIC STATES, Thomas J. Wetzel, 17 W. 42d St., New York. CENTRAL STATES, K. Franklin Peterson, H. V. Greenwood, 166 Lake Street, Chicago. MICHIGAN, L. D. Bolton, 319 Hammond Building, Detroit. PACIFIC COAST, The Laugenour Co., San Francisco.



# THE ACME AUTOMATIC MULTIPLE SPINDLE SCREW MACHINE

is built today on the experience and success gained thru years devoted to the improvement of the one machine. We've always operated hundreds of ACMES in our own plant. They stand for

**QUALITY**
**QUANTITY**
**ECONOMY**

and the lowest cost per piece.

**THE NATIONAL-ACME MANUFACTURING CO.**

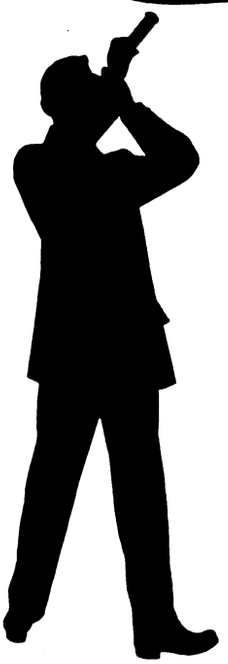
**CLEVELAND, OHIO**

New York, 77 White St. Boston, 141 Milk St. Chicago, 549 Washington Boulevard. Atlanta, Candler Building. Detroit, 1222 Majestic Building.


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ALUMALOYD SHEETS

A SPECIAL ANALYSIS SHEET COATED WITH ALUMINUM-ALLOYED METAL



**They're worth looking up, Mr. Auto Builder, Because—**

You cut out time-consuming, output-retarding,, expensive, preliminary work and get down to business in the finishing department, right at the start.

No sandpapering, rust-scouring, pumice-stoning, putty coating or applying of roughstuff. All ALUMALOYD requires for a high and durable finish is a primer, a one-color coat, a rubbing and a finishing varnish.

Honestly, can you beat that? And aren't you beating yourself out of time, capacity and money by loitering along in the old slow way?

Ask for the details NOW.

**THE STARK ROLLING MILL CO.**
Alumaloyd Sheet Department
Canton, Ohio



**What High Manufacturing Ideals Have Accomplished**

Time was, years ago, when it took considerable effort and talk to get a car manufacturer to pay a higher price for Solar Lamps than he was paying for ordinary ones.

It's surprising now how little talk it takes, and how many manufacturers convince themselves.

**Solar Lamps**

That's our reward for maintaining steadily in every Solar Lamp the utmost in quality, beauty, durability and service.

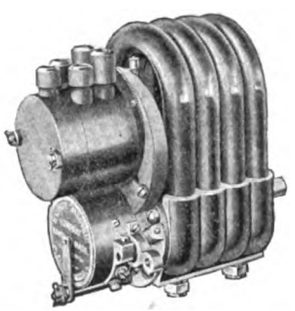
Even if yours is one of the few high-grade cars not regularly equipped with Solars—the great majority **are** equipped—the manufacturer will furnish them if you insist. And unless you do insist you'll never know what real lamp satisfaction is.



**Badger Brass Mfg. Co.**
Kenosha, Wis. New York City

90

**Heinze High Tension Magneto**



**Construction**—Mechanically unequalled.

**Durability**—Greater than the life of the car.

**Efficiency**—Proven by the users.

*Catalogue H with full information is yours for the asking.*

**HEINZE ELECTRIC COMPANY**
Lowell, Massachusetts

**Ready for More Business**

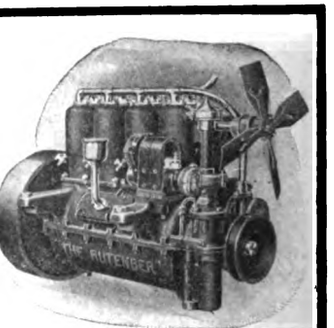
Increased facilities, new buildings, new machinery, enables us to make more motors.

**NOW IS YOUR TIME**

**Nothing better ever made than the Rutenber.**

Write for list of manufacturers using the Rutenber. Write for list of agents who say it sells the car. Write for personal testimonials, praising its power, speed, endurance and economy.

Latest improvements. Each motor carefully tested and fully guaranteed.



**4 x 4; 4 1-2 x 5; 4 3-4 x 5**

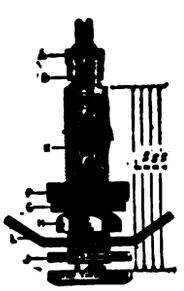
Marion Indiana **WESTERN MOTOR COMPANY** Logansport Indiana

Established 1844

**SCHRADER UNIVERSAL VALVE**

Trade Mark Registered April 30, 1895

**SIMPLE AND ABSOLUTELY AIR TIGHT**



Schrader Motor Tire Valves, as shown in cut, are the regular equipment for G & J Motor Tires, Hartford Dunlop Detachable Tires, Fisk Detachable Motor Tires, and New Goodyear Detachable Motor Tires.

Our No. 777 Motor Tire Valve is the standard for 2½ inch and 3 inch tires and our No. 725 Motor Tire Valve is the standard for tires larger than 3 inches.

**Supplied to the Trade by All Tire Manufacturers**

Manufactured by **A. SCHRADER'S SON, Inc., 28-30-32 Rose St., New York**


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In the year of 1909 we built

**11500 STEERING GEARS**

In the year of 1910 we will build

**25000 STEERING GEARS**

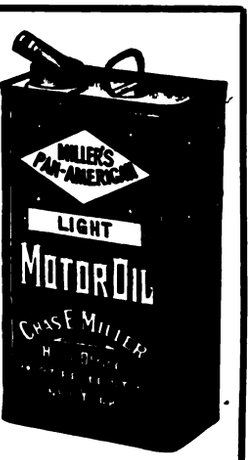
Does not this growing demand prove that:
1—Our Steering Gears are well designed and thoroughly made?
2—Our Deliveries are in accordance with Schedule?
3—Our Customers are SATISFIED?

—LET US HEAR FROM YOU—

**THE GRANT-LEES MACHINE COMPANY, Cleveland, Ohio**




MILLERS PAN-AMERICAN LUBRICANTS




**MILLER'S**

# Pan-American Motor Cylinder Oils

are refined from **the finest grade Pennsylvania Crude** and are pure, distilled, highly-filtered mineral oils. **Have a high fire test, low cold test and** not affected by climatic changes. **They are made in three grades** suitable for all types of water and air cooled **Motor Cars, Motor Boats and Motorcycles.** In order to convince you of the efficiency of these oils we are willing to make you a **special price** for an initial order, much lower than usually quoted on other high grade oils.

**WE HAVE HANDLED THIS OIL DURING THE PAST EIGHT YEARS AND DO NOT HESITATE TO RECOMMEND IT TO BE THE EQUAL OF ANY FIRST CLASS OIL ON THE MARKET.**

**Special Prices for Manufacturers, Jobbers and Dealers**

**ADDRESS OIL DEPARTMENT**

**CHAS. E. MILLER,** MANUFACTURER, JOBBER, EXPORTER AND IMPORTER
**Home Office, 97-99-101 Reade St., New York City**

**The Largest Auto Supply House in America.**

**BRANCHES—Philadelphia, Boston, Cleveland, Detroit, Buffalo, Hartford, Atlanta, Brooklyn, New York City.**

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GUARANTEED 5000 MILES

# AJAX TIRES

THERE is no copyright or patent on the AJAX guarantee of 5000 miles or 200 days' service.

Any other tire manufacturer who has the same confidence in his products as we have can issue you the same guarantee certificate.

But for five years past we have been waiting in vain for another maker who would show a disposition to protect customers in this way.

*Why does not one of them prove his faith by adopting this guarantee?*

You can draw your own conclusions.

**AJAX-GRIEB RUBBER CO.**
**1777 Broadway, New York**
**Factories: Trenton, N. J.**
***Branches in Principal Cities***

Pullman

# 1911 Models
## NOW READY FOR DELIVERY

ADVANCE INFORMATION BULLETIN MAILED ON APPLICATION.

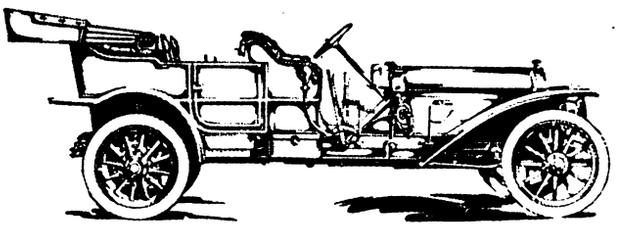
DEALERS: Only a limited number of machines will be built in the 1911 season, which will be constructed for delivery on specified dates. It behooves progressive dealers to make immediate application for territory as applications must necessarily be treated in the order received.

It has been found impossible to improve upon the design and construction of 1910 models which will be continued with only detail changes.

**Pullman Motor Car Co.**
**York, Pa.**
Licensed under Selden patent.

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# Stevens-Duryea



MODEL "Y"

THE beautiful suppleness of the six-cylinder motor, with its powers of rapid acceleration, is a revelation in smooth, shockless and vibrationless travel. The type of motor that makes possible the most comfortable tour; the motor that delivers its power to the rear tires exactly like a turbine engine, is the six.

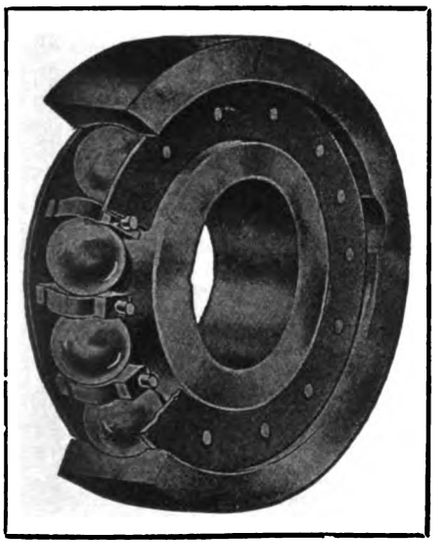
We Are Justly Proud of the Six-Cylinder Stevens-Duryea Model "Y"

Our latest catalog deals interestingly with this model. Post free.

STEVENS-DURYEA COMPANY
CHICOPEE FALLS - MASS.
LICENSED UNDER SELDEN PATENT

The Pioneers to Employ 92% of Balls in the Raceway

# SCHAFER
# Ball Bearings
## Fear No Comparison



**Damaged Balls** Should a ball or bearing become damaged by water or other foreign matter, we prefer to refill the bearing entirely with new balls, thereby insuring absolute uniformity of all the balls throughout their life — or to replace the entire bearing.

*Write for Catalogue.*

SOLE IMPORTERS

**BARTHEL, DALY & MILLER, 42 Broadway, New York City**


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## Standard Equipment

means the best in automobile accessories. They eliminate trouble, reduce cost of upkeep and make motoring safe, comfortable and enjoyable.

Jones Speedometers
Jones Electric Horns
Weed Chain Tire Grips
Connecticut Ignition Specialties

UNITED STANDARD EQUIPMENT MANUFACTURERS — WE PROTECT THE DEALER, THE CAR AND THE OWNER

Soot-Proof Spark Plugs
Automatic Windshield
MoToRoL
Non-Fluid Oil

UNITED MANUFACTURERS, Inc. 250 West 54th Street, New York




## Cramp — Metals

## WARNER GEAR COMPANY
MUNCIE, INDIANA



25 H. P. PLANETARY TRANSMISSION
Showing Both Cone and Disc Type Clutch.

Steering Gears
Transmissions
Differentials
Clutches
and
Control Levers

## HARDENING
**High Speed Steel Hardening a Specialty**

Case Hardening, Tool Steel Hardening
Heat Treating and Annealing

BRIDGEPORT METAL TREATING CO.
Bridgeport, Conn.

## The Royal Equipment Co.
Manufacturers of
TRADE MARK *Raybestos*
BRAKE LINING
and
The Raymond and Duplex Brake
436 Housatonic Ave., BRIDGEPORT, CONN.

## Cylinder Castings
that are
## Absolutely Dependable

Experience, resources and a fixed determination to produce only the best are responsible for the selection of our cylinders, pistons, etc., by those makers who know what quality is and where to get it.

HOW ABOUT YOUR CONTRACT?

THE MANUFACTURERS FOUNDRY CO. Waterbury Conn.

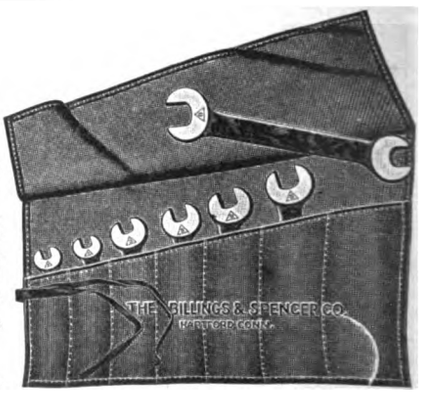
## BRISCOE PRODUCTS

Radiators, Hoods, Fenders,
Sheet Metal Parts of All Kinds

**Briscoe Manufacturing Co.**
General Offices, Detroit, Mich. Factories, Detroit and Newark, N. J.

## 7 Strong Wrenches

14 openings from 7-16" to 1¼", or in millimeter sizes from 6 m.m to 25 m.m., put up in a strong kit bag. These wrenches are drop forged of just the right steel, for hard usage. Write for new catalog of auto tools, all drop forged.




**The Billings & Spencer Co.**
HARTFORD, CONN.


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# CORBIN FOR 1910

**"Full Jeweled!" A Splendid Car Perfected!**

Touring Cars, Runabouts and Toy Tonneaus . . $2,750.00
Including Cape Top, Bosch Magneto and Prest-O-Lite Tank in addition to all regular equipment.

*Write for advance circular H.*

**The Corbin Motor Vehicle Corporation,** New Britain Conn.
Licensed under Selden Patent.

---

# The Inter-State "40" $1750

**The Maximum in Speed, Comfort, Reliability and Value**

**4-Cylinder, 40 H.P., 118-inch Wheelbase, 34x4-inch Tires, U. & H. Imported Magneto, Double Ignition System, Multiple Disc Cork Insert Clutch of improved design, Three-quarter Elliptic Rear Springs and many other features found only in the higher priced cars.**

**Our proposition is interesting to all dealers. Compare our specifications with any high priced car.**

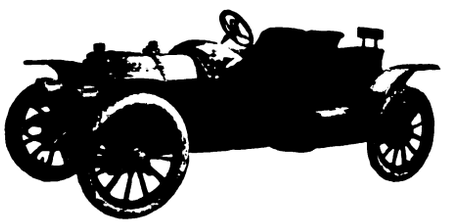
**INTER-STATE AUTOMOBILE CO.** (28) **Muncie, Ind.**
Licensed under Selden patent.

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# MERCER

**TOURING CAR**
**TOY TONNEAU**
**SPEEDSTER**

**Each $2150**



**Style, Luxury, Quality, Strength, Speed.**

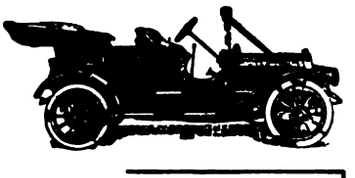
**Made Right and Stays Right**

*Let us hear from you.*

**MERCER AUTOMOBILE CO., Box 126, Trenton, N. J.**

---

# $1,600 Cartercar



Model "L," 4 cylinder, 30-35 H.P., 110 inch wheel base, 5 passenger, Friction Transmission. Chain-in-Oil Drive, any number of speeds, will climb a 50% grade with load, including magneto, gas lamps, generator, horn, mats, tools, jack, etc. $1,600.

Model "H," 4 cylinder, 25 H.P., 100 inch wheel base. Runabout $1,100. Double Rumble $1,125 Double Divided Rear Seat $1,150. Miniature Tonneau $1,150.

Write for 1910 catalog.

**CARTERCAR CO.**
**Pontiac, Mich.**
Licensed Under Selden Patent.

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# Badger 30 $1600

**112 inch wheel base, 34 inch wheels, quick detachable rims, Bosch dual ignition with storage battery, selective type transmission, Brown-Sharpe gears, F. & S. ball bearings.**



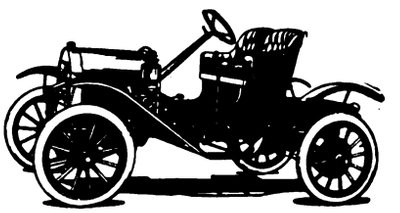
*Write for our new liberal agency proposition.*

**BADGER MOTOR CAR COMPANY, Columbus, Wis.**

---

# EVERYMAN'S CAR

**Seven Models**



**Send for Literature**

**The BRUSH $485.00**

**BRUSH RUNABOUT COMPANY**
**414 Baltimore Avenue, Detroit, Mich.**

---

# Regal "30"

**"The Ideal Car for all Purposes"**

**The only $1250 car with a record of three years of success behind it**

**$1250**

**Runabout, Baby Tonneau, Touring Car, Coupe**

**Greatest Automobile Value in America**

**WRITE FOR OUR LITERATURE**

**REGAL MOTOR CAR COMPANY, Detroit, Mich.**

---

# "RAJAH" SPARK PLUGS

**IGNITION ABSOLUTELY SURE**

**RAJAH AUTO SUPPLY COMPANY**
**BLOOMFIELD, NEW JERSEY, U. S. A.**
**(Watsessing Station, D., L. & W. R. R.)**


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# MORGAN & WRIGHT TIRES ARE GOOD TIRES

Not a Car of Advertised Value,
But a Car of Intrinsic Worth.

STERLING

$1750

Let us send you our Catalog

ELKHART MOTOR CAR COMPANY, Elkhart, Ind.

1911—De Tamble—1911

5—DISTINCT MODELS—5

Model "B" 2 Cylinder, 3 Passenger, Roadster, $650
Model "F" 2 Cylinder, 2 Passenger, Roadster, $675
Model "E" 4 Cylinder, 2 Passenger, Roadster, $800
Model "C" 4 Cylinder, 5 Passenger, Touring, $1275
Model "D" 4 Cylinder, 5 Passenger, Torpedo, $1400

AGENTS If you have not contracted for your 1911 requirements, for information regarding territory on above write or wire the

CAR MAKERS SELLING CO. 1256 Michigan Ave. CHICAGO, ILL.

THE SELDEN CAR
FOR 1910

| | |
|---|---|
| 5-Passenger Touring Car | $2,000 |
| 3-Passenger Roadster | 2,000 |
| 4-Passenger Torpedo Tonneau (Magneto Included) | 2,250 |
| 7-Passenger Touring Car (Magneto Included) | 2,500 |

Booklet and specifications upon application.

AGENTS WANTED IN UNOCCUPIED TERRITORY.

SELDEN MOTOR VEHICLE CO.

GEO. B. SELDEN, President, - ROCHESTER, N. Y.

Licensed under Selden patent.

Franklin 1911 Automobiles

To set forth in detail all the advantages of Franklin air cooling over water cooling would require much space, but the features which are bound to decide you are: Simplicity, freedom from attention, independence of climate and weather conditions, reliability, there being nothing to break down, and a higher thermo-dynamic efficiency.

H H Franklin Manufacturing Company Syracuse N Y

Licensed under Selden Patent

K-R-I-T

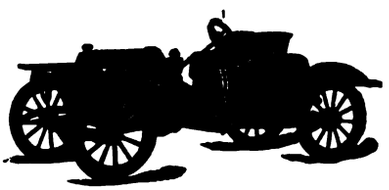
"The car with the invisible start."

96 in. wheel base
32 in. wheels

22½ H. P. $800

Sliding gear transmission. Multiple disc clutch. Weight, 1200 lbs.

Runabout $800.
Roadster $825.
Surrey $850.



Write for Catalog

K-R-I-T Motor Car Company
DETROIT

THE THOMAS FLYER is the champion endurance car of the world. Over 80 per cent. of the people who own Thomas Flyers previously owned other cars. They were in a position to appreciate automobile values. The Thomas Flyer is now their unqualified choice.

The E. R. Thomas Motor Company maintains a force of traveling experts who periodically call upon every Thomas owner and make sure that his car is in good condition. Let us send you some of the letters from our owners and some of our interesting engineering literature.

E. R. THOMAS MOTOR CO., Buffalo, N.Y.

Licensed under Selden Patent.




The Master Magneto!

TRUE HIGH TENSION TYPE

J. S. BRETZ COMPANY

SOLE IMPORTERS

TIMES BUILDING NEW YORK


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THE ATWATER KENT

UNISPARKER

"Gives Perfect Ignition"

ATWATER KENT MFG. WORKS

33 North Sixth Street PHILADELPHIA, PA.

Motor Delivery is Young



Now is the best time to get grounded in the trade with a GOOD car—one that has stood the test of hard work. The

MONITOR

will actually do the work of three horsedrawn vehicles at one-half the cost—this will appeal to the merchant. Write for liberal agency proposition today.

"Designed Right, Built Right, Priced Right."

MONITOR AUTOMOBILE WORKS

214 N. Academy Street, Janesville, Wis.

STEERING GEARS
CONTROL LEVERS
RADIATORS

PROMPT DELIVERY

CENTAUR MOTOR COMPANY

510 Majestic Building DETROIT

SERVICE and SATISFACTION

are assured when

G&J TIRES

are used.

G. & J TIRE CO., Indianapolis, Ind.

We Sell Continental Demountable Rims.

When in Detroit stop at

Hotel Tuller



Automobile Headquarters.
Absolutely Fireproof.
Every Room Has Bath.
Rates $1.50 up.
In the Center of the Business District Facing Beautiful Grand Circus Park.
Finest Grill Room in the City.
Our Grand Roof Garden Cafe Opens June 1st.
Vocal and Instrumental Music.

L. W. TULLER, Prop.

Diamond

The Pioneer Motor Tires of America

FIRST—BEST

THE DIAMOND RUBBER COMPANY, Akron, Ohio

Real Radiators

made of individual square tubes so much imitated in appearance, only.

FEDDERS RADIATORS

are just what they appear to be—genuine square tubes. Furnished with tubes "staggered" or Mercedes finish.

You See the Fedders on the Finest Cars

FEDDERS MANUFACTURING WORKS, Buffalo, N. Y.




A Real Battery
AT A REAL BARGAIN

We have on hand a number of 6 v. 60 amp. dry type storage batteries, built for us by one of the best known manufacturers. These batteries were built to sell at $26.00 and are worth the money, but as we have accidentally become overstocked, we offer them while they last at $12.50.

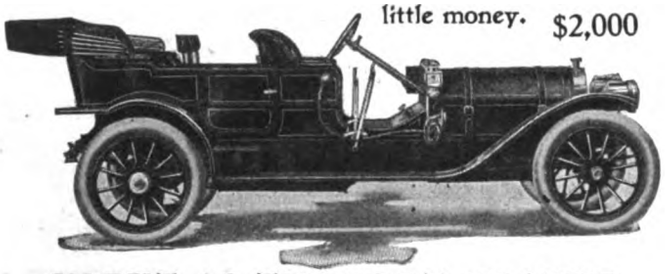
No better battery is built or sold at any price.

EXCELSIOR SUPPLY CO. (Estab. 1876) Randolph St. Bridge CHICAGO, ILL.

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# Empire Tires
## WEAR LONGEST
EMPIRE TIRE CO., Trenton, N.J.

THE
# MITCHELL SIX
The only six cylinder car in the world that sells for so little money. $2,000



SILENT AS THE FOOT OF TIME

Specifications: MOTOR, 4½x5. TRANSMISSION, selective type. WHEELS, 36x4. WHEEL BASE, 130 inches. IGNITION, magneto and dry cells. Color, dark blue, cream running gear; option, dark maroon, cream running gear. TOOL BOXES, steel baked enamel. SEATING CAPACITY, seven passengers. STEERING WHEEL, natural finish. SPRINGS, platform type. BODY OPTIONS, seven-passenger touring car or close-coupled body. EQUIPMENT, oil lamps and horn, full tool equipment, including jack.

# MITCHELL

Licensed under Selden patent.

*F. O. B. Racine, Wis.* Racine, Wis., U. S. A.

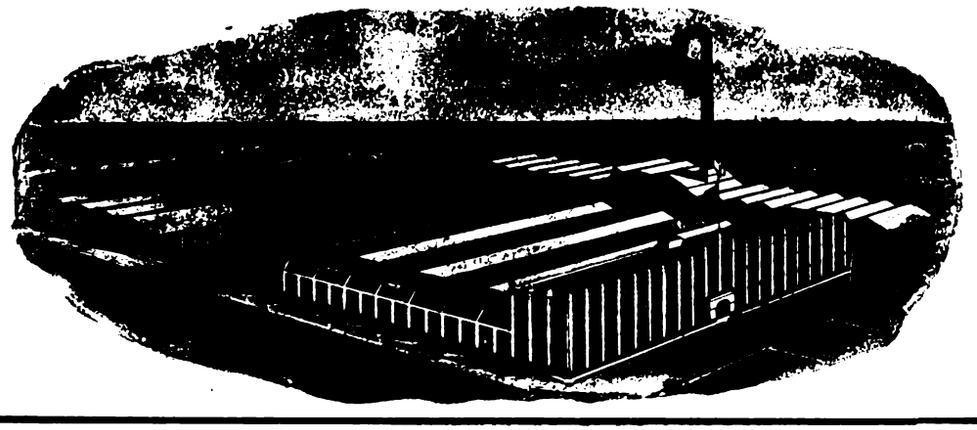
# WETHERILL FINISHED CASTINGS

¶ Die cast from Parson's white brass make the finest kind of engine bearings.

¶ Absolutely accurate and every one interchangeable.

¶ We are now making 25,000 bearings per day, and increasing output as rapidly as possible. A case where quality is recognized and put to use.

**WETHERILL FINISHED CASTINGS COMPANY**
PHILADELPHIA, PA.



THE OUTPUT of complete Front and Rear Automobile Axles of this plant exceeds the capacity of all competition combined.

## The American Ball-Bearing Company
L. S. & M. S. Ry. and Edgwater Park
CLEVELAND, OHIO, U. S. A.


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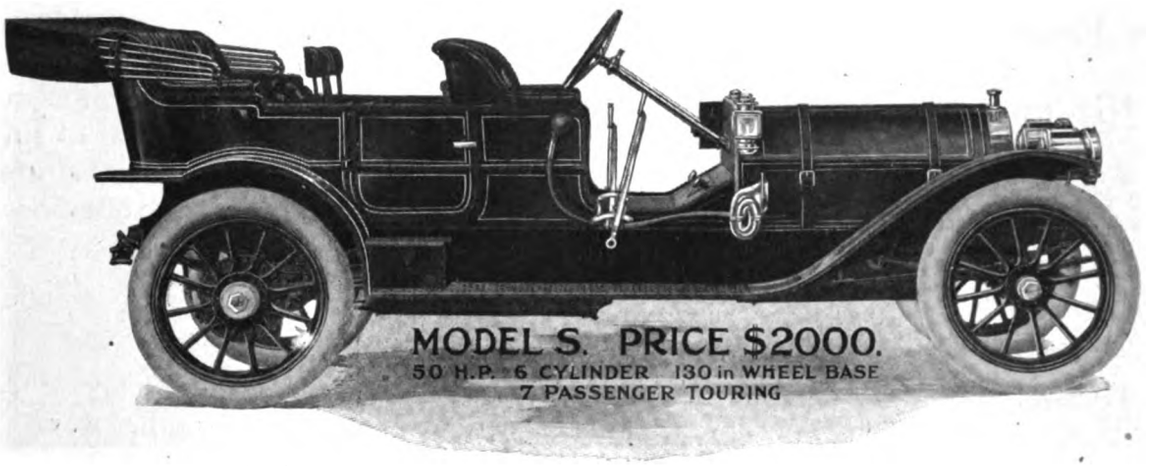



The *Mitchell* has earned it's way into the hearts of the people by the *best service* of which an automobile is capable.

Of the thousands of owners you can't find one who doesn't *swear by the car.*

It's the low-cost high-class car
Silent as the Foot of Time

*The car you ought to have at the price you ought to pay*




**Mitchell-Lewis Motor Co.**
SUCCESSOR TO
Mitchell Motor Car Co. and Mitchell & Lewis Co. LTD.

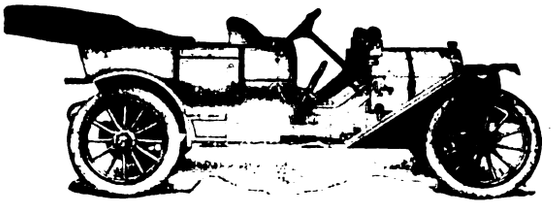
PARIS ADDRESSES
20 Rue De Tilsitt et 4 Avenue Mc Mahon

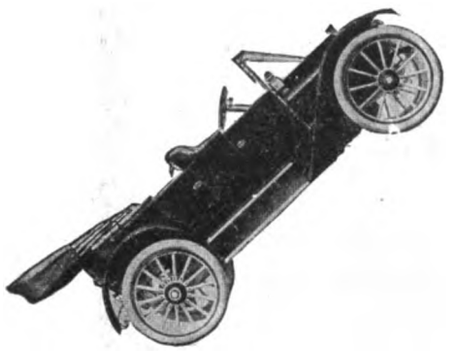
*Racine, Wis. U.S.A.*

PRICES F.O.B. RACINE
LICENSED UNDER SELDEN PATENT

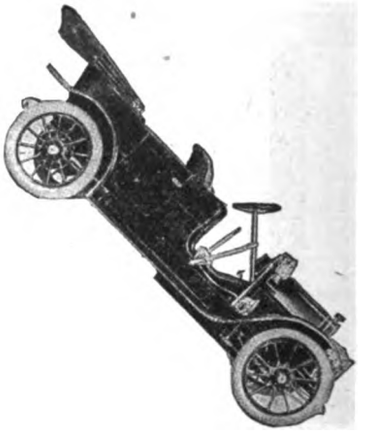



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# A Measure of Car Value

## An Equipment Talk of Interest to Every Car Buyer

THE trend of the times is toward complete equipment of cars by the manufacturer. For it is only when the manufacturer furnishes complete equipment of known value that he can be sure of equipment satisfaction. And it is human nature that if the buyer is continually the prey of equipment troubles his disgust and dissatisfaction will extend to the car itself.

That is why, on their 1911 cars, many manufacturers have decided to include the Warner Auto-Meter as a part of the regular equipment.

They know that though the Warner Auto-Meter costs them more, its presence on their cars is an assurance of speed-indication satisfaction obtainable in no other way. And the fact that a manufacturer is willing to pay for the Warner Auto-Meter three times the cost of a makeshift instrument is in itself a guaranty of car value.

It is an assurance that the car maker is giving the best possible value all down the line, even though it means some loss of profit. It proves that his is a *desirable*, *reliable* car.

When you buy a car equipped with the Warner Auto-Meter you may *know* that you will have no regrets, either over the speed-indicator or the car itself.

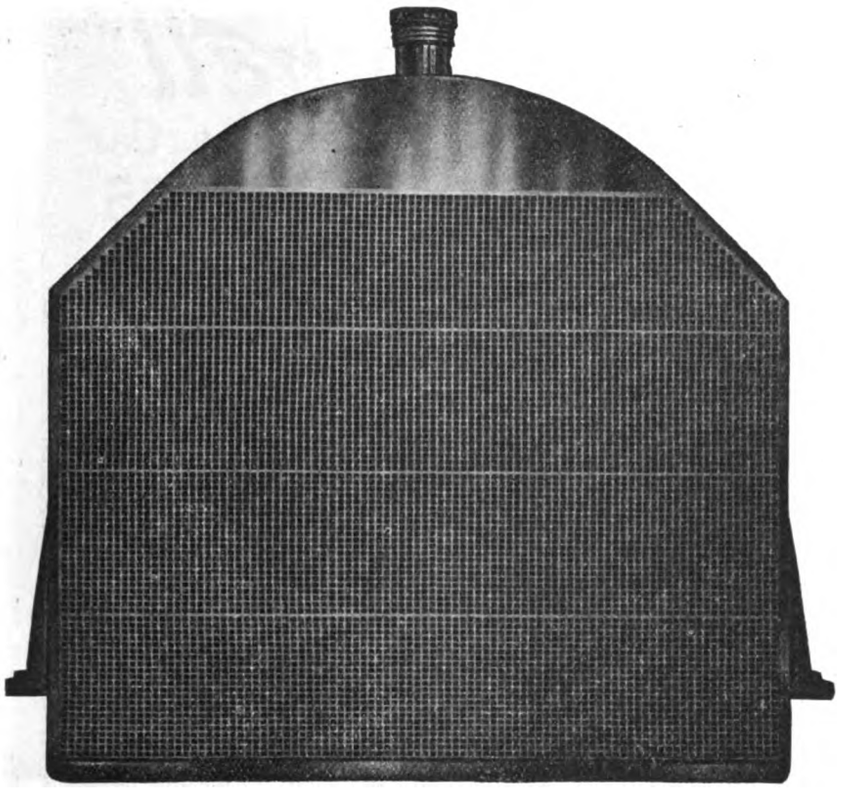
**WARNER INSTRUMENT COMPANY, 967 Wheeler Avenue, Beloit, Wis.**

**Branches:**

ATLANTA, 116 Edgewood Ave.
BOSTON, 925 Boylston St.
BUFFALO, 720 Main St.
CHICAGO, 2420 Michigan Ave.
CINCINNATI, 807 Main St.
CLEVELAND, 2062 Euclid Ave.
DENVER, 1518 Broadway.
DETROIT, 870 Woodward Ave.
INDIANAPOLIS, 330-331 N. Illinois St.
KANSAS CITY, 1613 Grand Ave.
LOS ANGELES, 748 S. Olive St.
NEW YORK, 1902 Broadway.
PHILADELPHIA, 302 N. Broad St.
PITTSBURG, 5940 Kirkwood St.
SAN FRANCISCO, 36-38 Van Ness Ave.
SEATTLE, 611 E. Pike St.
ST. LOUIS, 3923 Olive St.

(88)

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# Honesty of Purpose

¶The use of MAYO RADIATORS is a pretty good indication of the sincerity of the manufacturer claiming to build a really high-class car.

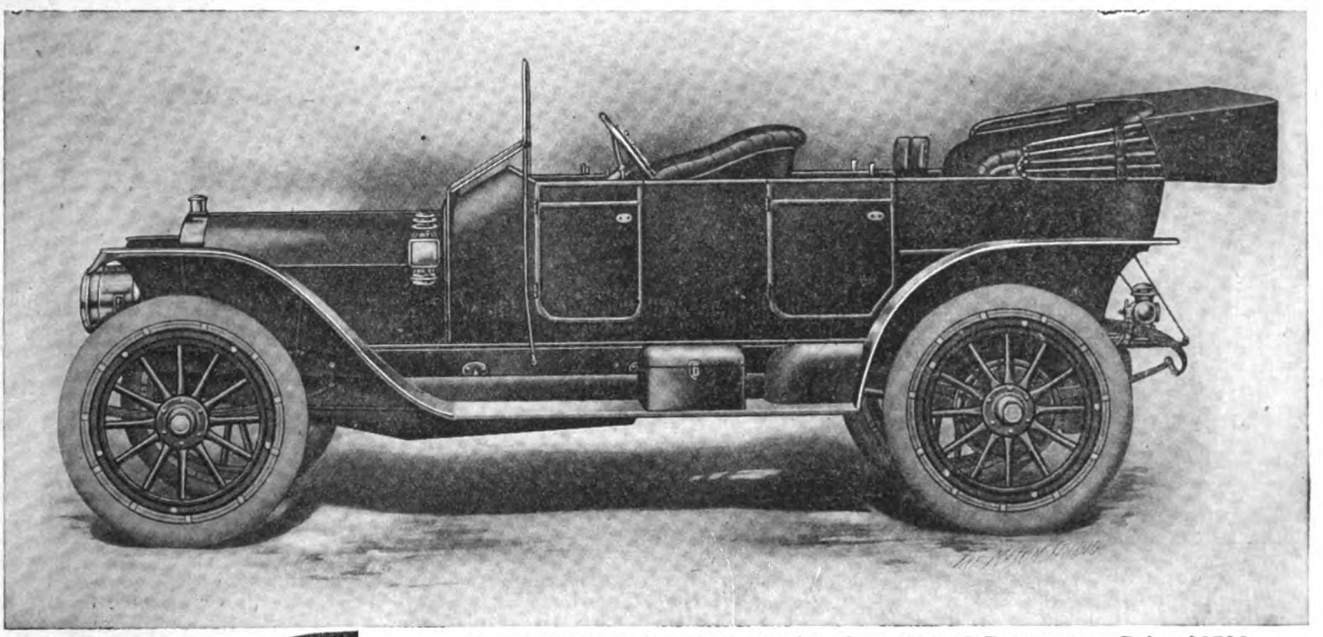
¶The list of Mayo customers reads almost like the roll of honor of the American automobile industry.

¶We take only such contracts as we can handle according to the conditions under which they are accepted.

¶You can not only bank on MAYO RADIATORS being uniformly of sterling worth but on receiving them on schedule time.

¶Radiator satisfaction is complete with the use of MAYO RADIATORS.

**MAYO RADIATOR COMPANY**
**New Haven, Conn.**



Model "R" Series "B" Touring Car. 5 or 7 Passenger. Price $3500.

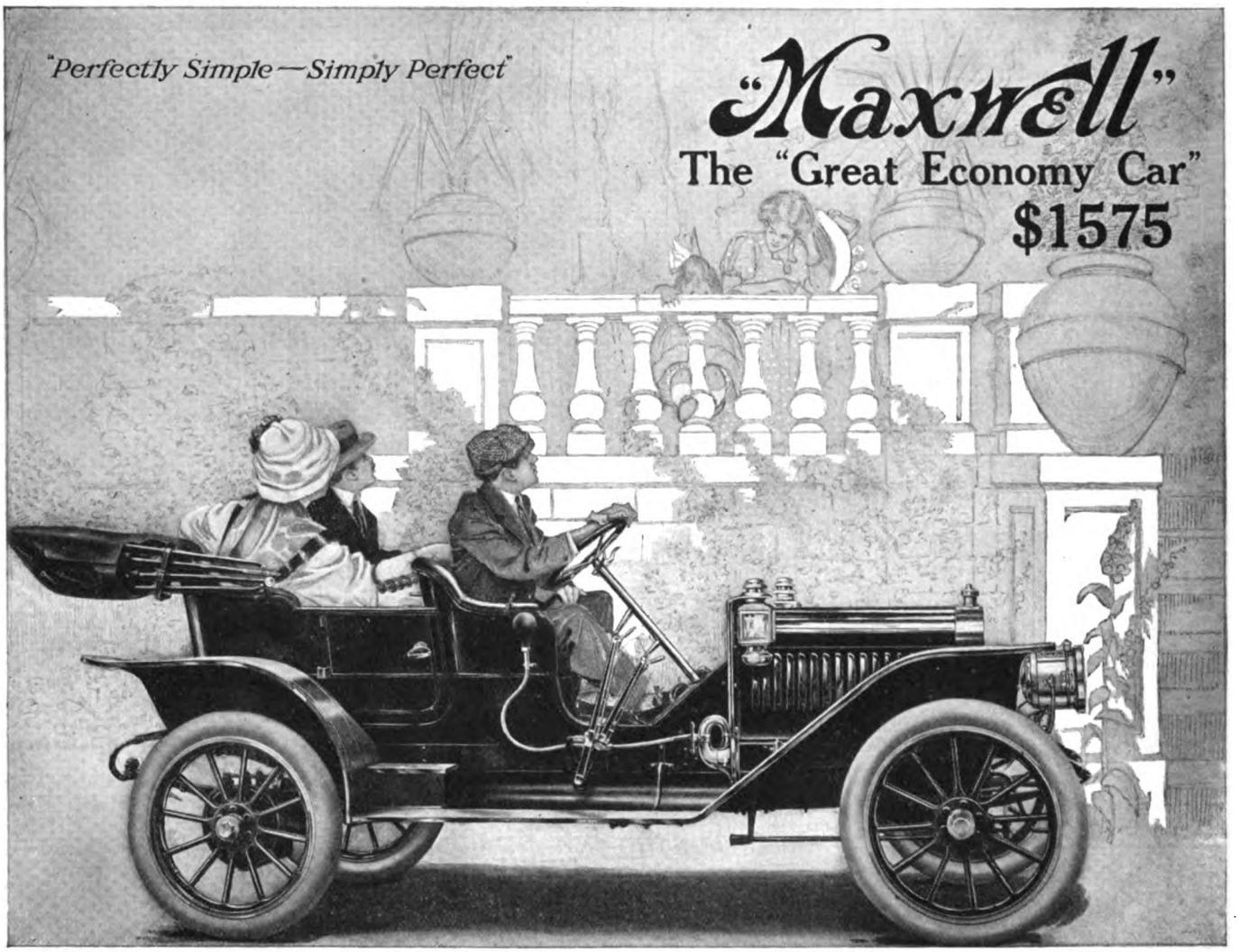
Knox

1911 SERIES
Up-to-Date Types and Construction

Write for advance information

KNOX AUTOMOBILE COMPANY, Licensed under Selden patent. Springfield, Mass.


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# Here Is the Great Utility Car You Have Been Waiting For!

**30 H. P.** **4-Cylinder** **Detachable Tonneau**

The sale of Maxwell 5-Passenger Touring Cars and Maxwell 2-Passenger Runabouts has been enormous during the past season—there are, however, a large number of people who, for the most part, require only a 2-Passenger Roadster—yet when friends are to be entertained need a big 4-Passenger Touring Car.

**Its Convenience**

Here is the ideal Maxwell Car for these people! It is a big car, with the same long wheel-base (110 inches) as the 5-Passenger Maxwell Touring Car, and the same big wheels and tires (34 x 4 inches). The Tonneau of the Maxwell can be taken off in less than 3 minutes, making it a combination Touring Car and Roadster.

**Its Economy**

To the thousands of people who have learned from our advertising the **exact figures** of Maxwell economy, it is enough to say that this Maxwell model costs even **less** to run than the Maxwell 5-Passenger Touring Car. Because when used by two people the weight of the Tonneau is removed—and lighter weight means lower running cost.

**If you did not see our recent announcement showing in exact figures just how little it costs to run a Maxwell 5-Passenger Touring Car 5,000 miles a year, write to us and we will send you one, also our catalog and copies of the "Co-Operator" and "How to Judge an Automobile." Drop us a postal—just say "MAIL BOOKS."**

**Sale of Maxwells to Date**

| | |
|---|---|
| Sold to June 30, '10 . . | 31,788 |
| Sold during July, '10 . | 1,971 |
| Maxwells in use today . | 33,759 |

**Watch the Figures Grow**

## MAXWELL-BRISCOE MOTOR CO.

**VALE STREET, TARRYTOWN, N. Y.**

*Licensed under Selden Patent—Members A. L. A. M.*

**MAXWELL FACTORIES**

NEWCASTLE . . . IND.
PROVIDENCE . . . R. I.
TARRYTOWN . . . N. Y.
KINGSLAND POINT, N. Y.

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ADDRESS ALL COMMUNICATIONS TO THE COMPANY TELEPHONE, 7400 COLUMBUS

New York Taxicab Co.

622 WEST 57TH STREET

NEW YORK May 14th 1910.

Timken Roller Bearing Co.

Canton,

Ohio.

Gentlemen:-

We operate over 500 imported Taxicabs in New York City and vicinity.

Due to the hard service they have to give, we had to equip all our Chassis with Timken Roller Bearings, in both front and rear wheels.

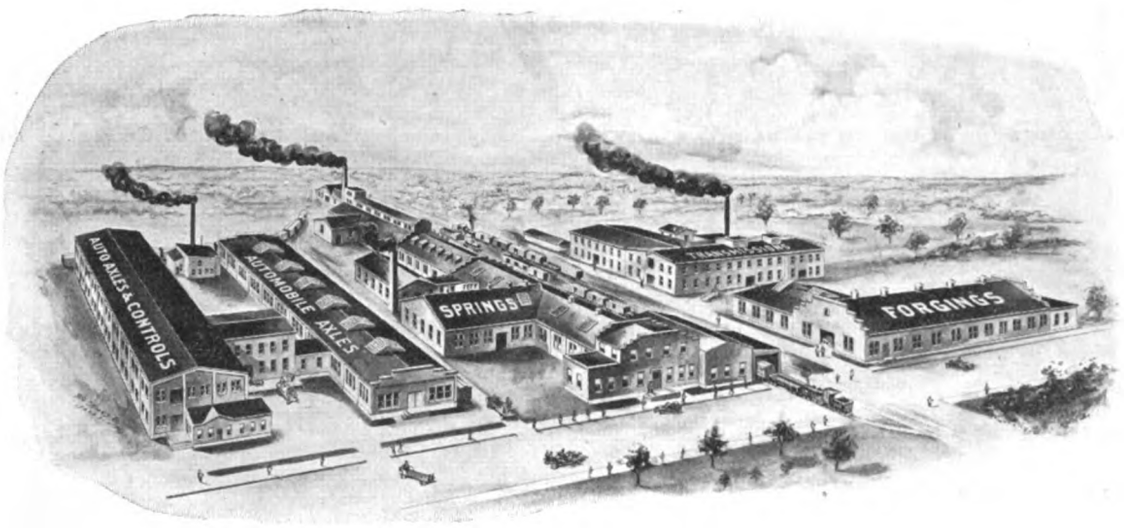
Our experience with and use of Timken Bearings has been most satisfactory, and has permitted us to eliminate the serious troubles we had before.

Yours truly,

NEW YORK TAXICAB COMPANY.

Chief Engineer.

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# FIVE PLANTS

PRODUCING

LEWIS

# "Quality"

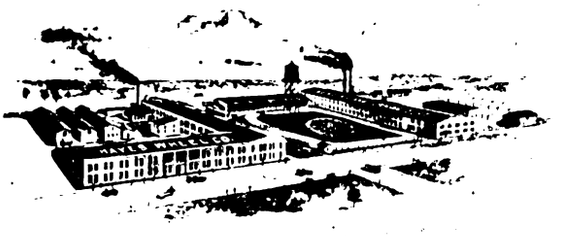
## Automobile Springs, Forgings, Controls, Axles and Transmissions

**THE LEWIS SPRING & AXLE CO., Jackson, Mich.**

SALES AGENTS

**AMERICAN DISTRIBUTING CO., 1030 S. Park Street, Jackson, Mich.**

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# The Advantages of Buying Automobile Parts in Jackson

On this and facing page are shown five of the leading and largest producers of automobile parts.

These companies are:

**Lewis Spring & Axle Company**
**Hayes Wheel Company**
**American Gear & Manufacturing Company**
**Sparks-Withington Company**
**Frost Gear & Machine Company**

All are located here in Jackson.

Their situation in the logical distributing center of the automobile industry has resulted in a logical method of handling their $5,000,000 output.

This is the American Distributing Company, marketing the entire production of these five big Jackson plants—saving time and money—by eliminating delay—for the car builder.

From these Jackson companies the automobile builder can buy:

**Front and Rear Axles**
**Wheels; Springs**
**Transmission Gear Sets**
**Steering and Side Lever Control Sets**
**Fans and other Pressed Metal Parts**
**Drop Forgings**

Thus, as an instance, considerable time and bother is saved the buyer of such closely related parts as wheels and axles. He gets both in Jackson, avoiding the necessity of shipping the hubs to the wheel maker.

Only in Jackson are such time and money saving advantages.

All orders are placed through the American Distributing Company and distributed among the various plants; their progress watched and shipments made as scheduled.

The companies named have made Jackson famous as a parts-producing center; and they have done it by the uniformly high quality of their products.

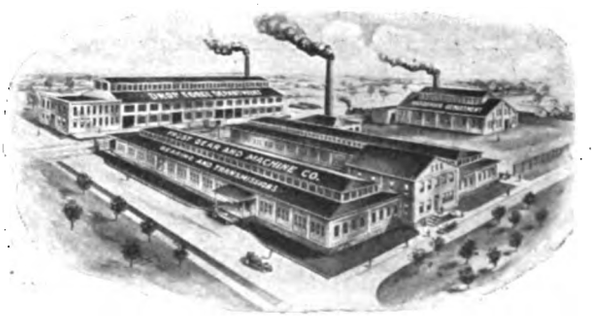
So, from Jackson, as from no other point, the automobile builder gets the two things he most desires—deliveries and quality.

## AMERICAN DISTRIBUTING CO., 1030 S. Park Street, Jackson, Mich.

**Sales Agents for**

LEWIS SPRING & AXLE CO. FROST GEAR & MACHINE CO. HAYES WHEEL CO.
SPARKS-WITHINGTON CO. AMERICAN GEAR & MANUFACTURING CO.





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**4 cylinder; 20 H. P.**
**Sliding gears; Bosch magneto.**

**$750**

**F. O. B. Detroit, including three oil lamps, tools and horn. Top, speedometer, trunk rack, gas lamps and tank, extra.**

## For 1911 the Hupmobile will be a continuation of the 1910 car.

### Five thousand owners have proved that the 1910 Hupmobile is right—that we could not improve upon construction or design.

There are two or three cars in this country which have succeeded simply because the owners *got what they thought they bought.*

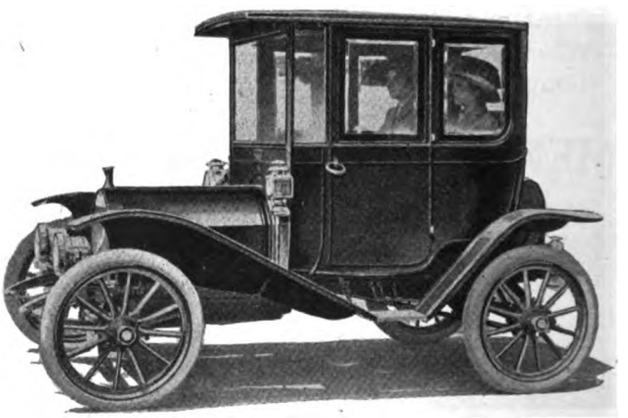
One of them is the Hupmobile, which has made good because it *is* good.

The third year of the Hupmobile is here—without a hint of real rivalry in its class.

Its owners are not merely pleased in a passive sort of way—they are whole-hearted and positive in their approval.

Ask any of its five thousand owners how they feel about the Hupmobile.

In every instance you will find that they have not had a single moment's dissatisfaction or cause for regret—that their cars have been all they expected them to be, and more.



**Hupmobile Coupe—$1250**

Regular equipment includes magneto; horn; electric headlights, dash and tail lamps, and interior overhead lamp; batteries and wiring; shock absorbers; drop seat for third passenger; 31 x 3½ inch rear tires. Finest upholstering and appointments. Plate glass windows, lowered and raised at will.

**HUPP MOTOR CAR COMPANY**

**Dept. K** Licensed under Selden patent. **Detroit, Mich.**

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# Less Perplexity

exist in lamps than in any other feature of a car's equipment.

# GRAY & DAVIS Lamps

make it so easy to get a brand that looks right, acts right, and, when you tell about it, sounds right. They are right.

Not only does the Gray & Davis line include "Closed Coupled" front lamps, "Bullet" electric side lamps in styles especially suited to torpedo bodies, combination ruby and number tail lamps,—all of distinctive Gray and Davis design—but standard and special lamps, and lighting equipment for every car need. It is to your benefit to write us on any phase of the lighting question.

GRAY & DAVIS, Amesbury, Mass.


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# Always and Always

# Diamond

# TIRES

# Are the Best

## Little Glidden Tour But Confirms the Big One

### Minnesota's Star Event

17 cars participating. Diamond tires on 7. Balance divided among 8 other makes. Only three Diamond tires changed all told—a record that no other tire approached. All 4 perfect score cars used Diamond tires.

### Also the Wisconsin State Reliability Test

Not a Diamond tire changed. Their superior record, in striking contrast with other tire showings, was the talk of the tour.

## "Users Know"

## THE DIAMOND RUBBER COMPANY, Akron, Ohio


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# The Locomobile Announcement 1911

## The "30" Shaft Drive-Four Cylinders
## The "48" Shaft Drive-Six Cylinders

**High Tension Dual Ignition System** on both models. Four speed selective transmission. A wide range of the latest body styles – either with or without front doors – can be supplied. Touring, Baby Tonneau, Runabout, Torpedo, Limousine and Landaulet. Finished in any color scheme desired by the purchaser

COMPLETE·INFORMATION·FURNISHED·ON·REQUEST

THE BEST BUILT CAR Locomobile IN AMERICA

The Locomobile Co·of America

New York Bridgeport, Conn. Boston
Philadelphia San Francisco Chicago

THE BEST BUILT CAR Locomobile IN AMERICA

LICENSED UNDER THE SELDEN PATENT


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# The Dayton Motor Car Co.

**Dayton, Ohio**

place the largest individual order ever given for demountable rims. All 1911 Stoddard-Dayton and Courier cars will be equipped with

# THE STANDARD UNIVERSAL RIM

**MANUFACTURED BY**

## The United Rim Company

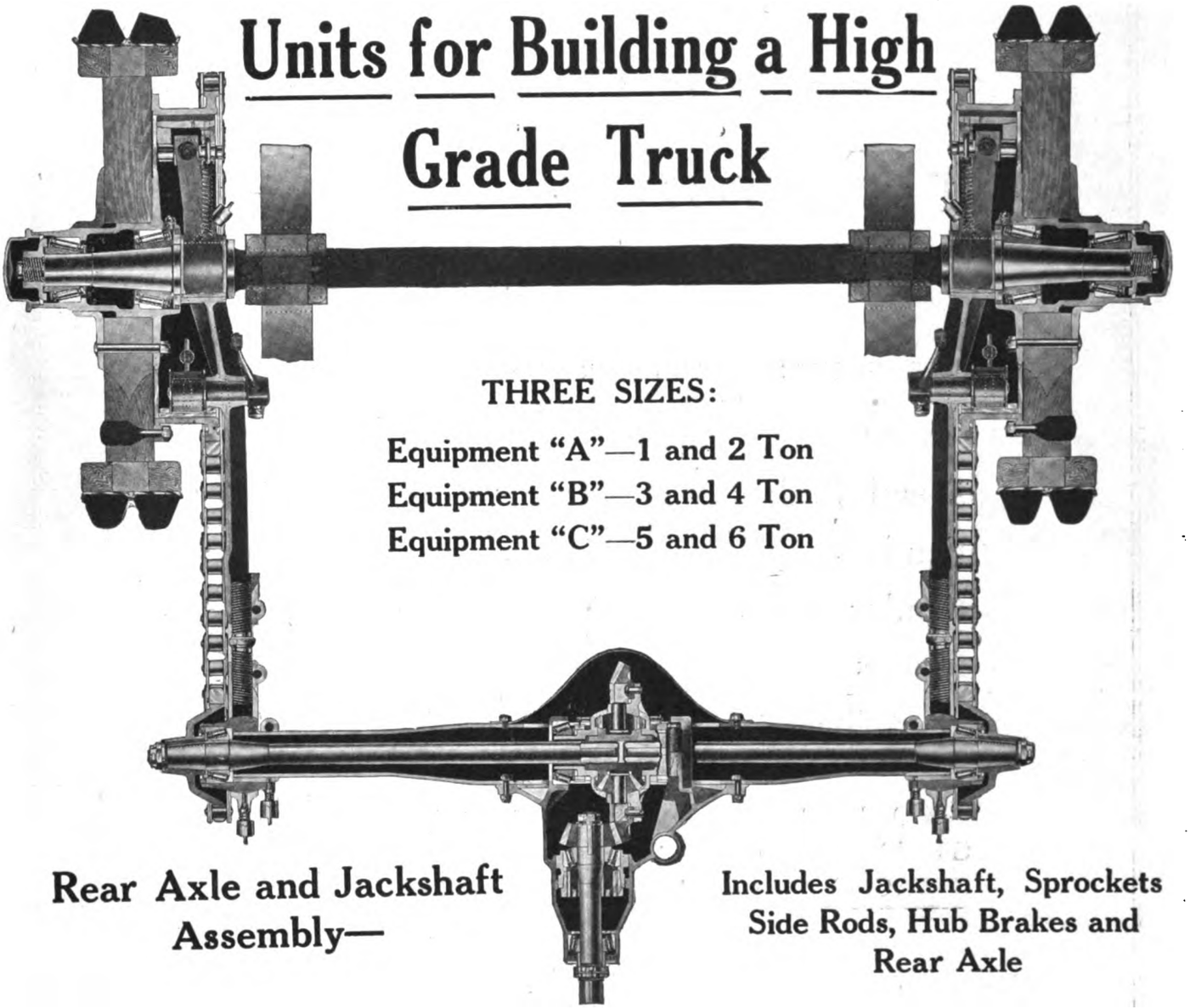
**Akron, Ohio**

The wholesale adoption of the Standard Universal Rim by representative automobile manufacturers is the best argument in favor of its practical and desirable demountable and quick detachable features.

# FITS ALL TIRES


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# What You Expected Tomorrow is Here Today—the Last Link in a Chain of Units for Building a High Grade Truck



THREE SIZES:

Equipment "A"—1 and 2 Ton
Equipment "B"—3 and 4 Ton
Equipment "C"—5 and 6 Ton

**Rear Axle and Jackshaft Assembly—**

**Includes Jackshaft, Sprockets Side Rods, Hub Brakes and Rear Axle**

If the motor car industry needed evidence to show it how deeply we enter into the problems of the industry they need only look at this new Axle.

It lifts a load of worry from the shoulders of every Truck Manufacturer who adopts it. Every Truck Builder will appreciate at once what a vast amount of detail work it sweeps away. The fact that it is built entirely in the Timken-Detroit shops means Timken-Detroit Quality—Reliability, absolute Dependability.

We make nothing but AXLES. We eat, sleep and think AXLES. For more than three years we've had this complete Rear Axle and Jackshaft Assembly in our bonnet—worked steadily at it until now we offer you a thoroughly COMMERCIAL proposition.

Please note that word COMMERCIAL. Absorb its full meaning—"a practical, tried-out article, fit for everyday use." Something for which we've no apologies to offer. You can adopt it at once for your cars without question. It's a COMMERCIAL axle built for COMMERCIAL service.

---

The features of this new Axle and Jackshaft Assembly are, Simplicity, Strength, Completeness, Economy of Power. Study the details; you will see many strikingly up-to-the-minute points of superiority.

The Jackshaft is one of our standard bevel drive rear axles with fittings on ends for adjustment to the Truck frame.

The forward sprockets are dished. This brings the Timken bearings on the ends of the Jackshaft on a direct line with the pull of the chain—reduces the load on the bearings and keeps the chains in alignment.

Side rods are journaled on the rear axle. They carry the brakes and are attached to the ends of the Jackshaft by large spherical bearings. This eliminates all twisting strains from the side rods.

Brake drums and sprockets are in one piece—attached directly to wheel spokes. Brakes are internal, cam-operated type—very large in diameter—extra wide face.

Rear axle inside of side rods is rectangular in section—gives the maximum amount of strength for minimum weight of axle.

Want to know more? Get in direct touch with our engineering department.

## The Timken-Detroit Axle Company, Detroit, Mich.

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# THE THREE GREAT LINKS

# Our Product
# Our Factories Our Name

OUR EQUIPMENT IS VERY COMPLETE FOR THE MANUFACTURE OF:

| | |
|---|---|
| Metal Bodies | Motor Pans |
| Fenders | Tanks |
| Fender Irons | Dashes |
| Hoods | Tool and Battery Boxes |

Sheet Metal Parts and Forgings

TWO LARGE PLANTS ENTIRELY SEPARATE, GIVING PROTECTION IN CASE OF FIRE. CAPACITY FOR PARTS FOR 5000 CARS PER MONTH.

We Enamel in Colors, Too

## HAYES MANUFACTURING CO.
DETROIT, MICHIGAN


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# To All Automobile Dealers:

Your business is getting harder every day. The automobile industry is passing through a great change and you must prepare for new conditions if you are to succeed.

It is to be "The survival of the fittest."

The production of cars has increased tremendously. Until to-day the task has been to manufacture cars fast enough. From now on the task is one of distribution—of selling cars.

Many manufacturers, in their mad rush to sell cars, slighted quality—the result to-day is being told in unsalable second hand cars. People bought blindly—often unwisely.

Yet the future of the automobile industry was never more promising than it is to-day. Production will be restricted through elimination. Manufacturers without experience and without capital will drop out. Dealers handling unreliable or unknown cars will drop out.

Live dealers appreciate this situation.

They know that people no longer buy by merely asking: "When can I have a car?" People want to know something about the car. How is it built? Who built it? Can the builders meet this increasing competition, and are they permanently established?

Live dealers appreciate the success the Hudson has attained. They know that the sale of 4200 cars in the first year of the company's existence is the largest and most successful first year of business in the history of the industry.

It is unnecessary to tell live dealers the inside story of this success. Just this: the Car, the Price, and the Men Behind.

We will establish agencies in many towns throughout the country.

To the best man we offer a rare opportunity. If you are that man, we want you. If you are that man and are not now the leading dealer, we will make you the leading dealer. For the Hudson plan is bound to win. We cannot tell you the details here. We do not care to make a public statement of them. We only want you to realize that you are right on the verge of the biggest change you ever felt since you entered the automobile business, and your success in the future depends upon the connections you make now.

If you want to tie up with an organization that has never had a failure or a bad year—that has not made a success through accident, then communicate at once with us and see for yourself the opportunity this proposition offers you for continued success in the automobile business.

You must decide now.

There are too many dealers—too much competition. Therefore, you must act quickly if you want to become one of the few successful dealers in your town.

**HUDSON MOTOR CAR COMPANY. Detroit, Michigan**

Licensed under Selden patent.


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# What Foresight Did for the Overland

**The amazing demand for Overlands has become the sensation of motordom. It is due to this fact: We began two years ago to prepare for conditions existing today. These are some of the things we did:**

We saw long ago that the demand of the future would come mainly from men of moderate means—from careful, economical people.

We knew that the cost of cars must come down. We saw that the greatest demand would soon go to that maker who gave the best car for the money.

So we invested our earnings—every penny of profit—in labor-saving machinery, in modern equipment. That investment to date exceeds $3,000,000.

## Saving $300 Per Car

We began making the parts which other makers buy. And we made them with the latest automatic machinery.

We invested a quarter million dollars in jigs alone—to perform each operation in the most exact, most economical way. We put $150,000 into a crank-shaft plant, and saved a large sum on each car.

We equipped a large plant for making screws and nuts alone. We put in our own steel plant for making steel frames. We installed an aluminum foundry which saves $300 per day.

We covered dozens of acres of floor space with machinery for saving cost. Every existing machine was discarded as soon as our inventors found or devised something better.

There are dozens of machines each of which save the work of from twelve to twenty men. There are hundreds of parts which we are making for less than they ever were made before.

And we are making them better—making each part like every similar part. We are getting exactness such as hand work never gave—to the thousandth part of an inch.

Thus we have cut the cost of Overlands 20 per cent. within the past year alone. Thus we are saving our buyers an average of $300 per car.

## Utter Simplicity

We saw, too, that most new buyers would run their own cars. There would be no expert to care for them.

So we set our inventors to work on simplicity. Wherever possible they made one part to take the place of many. The Overland today has fewer parts than any other automobile.

They got rid of complexities, including the complex pump. They perfected the simplest, quietest, most reliable engine that ever went into a car.

Thus they made a car which almost cares for itself—which is practically trouble-proof. Many an Overland has run thousands of miles without even cleaning a spark plug.

They created the pedal control found in many Overland models. One goes forward or backward, fast or slow, by simply pushing pedals. A child can master the car in ten minutes.

We established a system of test and inspection—the most elaborate ever known. Thus we made certain that every owner would get a perfect car.

Each of these cars, on the average, has sold four others like it. The demand has spread like wildfire, until this year's sales will exceed $24,000,000.

## Overland Prices

A 25-horsepower Overland sells for $1,000 in roadster style—for $1,100 with tonneau. The wheel base is 102 inches, the possible speed is 50 miles an hour.

A 40-horsepower Overland, with single rumble seat, sells for $1,250. The wheel base is 112 inches. Other Overland models all the way to $1,500.

The Marion-Overland—the finest car that our engineers can create—sells for $1,850 with touring body. All of the prices include gas lamps and magneto. The Marion-Overland includes Prest-O-Lite tank.

## Judge for Yourself

You can easily prove that the Overland gives far more for the money than any other automobile. You can see for yourself that it is the simplest car in existence. You can prove these facts anywhere, for Overland dealers are in 800 towns.

There are Overland owners in every community. We have added 14,000 new ones in the past six months. They will tell you how low is the cost of upkeep—how reliable and trouble-proof are the cars. They are so reliable that the Government uses them to carry the mails.

Send us this coupon and we will send you the facts, and pictures of every style. Then see and compare the cars.

(N 27)

**The Willys-Overland Company**
**Toledo, Ohio**

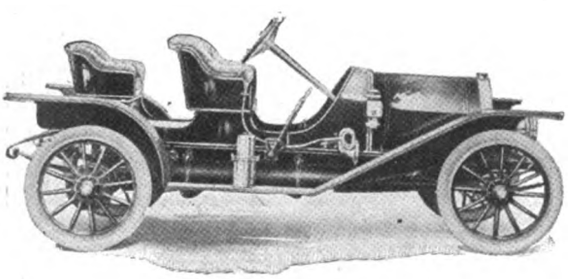
*Send me the facts about*

*Passenger Cars* ☐ *Delivery Cars* ☐

*The Marion-Overlands* ☐

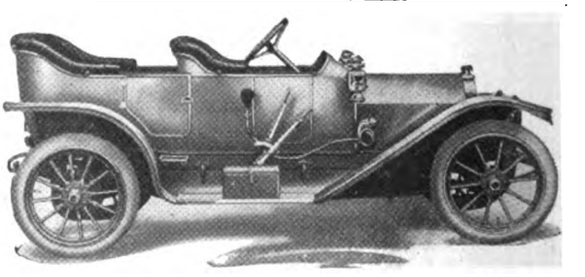
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The 25-horsepower Overland, with 102-inch wheel base, costs $1,000 to $1,100, according to style of body.
The 40-horsepower Overland, with 112-inch wheel base, costs $1,250 to $1,500, according to style of body, etc.

All prices include gas lamps and magneto



The Marion-Overland—prince of the line—costs $1,850 with touring car body. Also made as racing roadster, as town car and with torpedo body.
Overland Delivery cars, $1,100. Capacity, 800 pounds and two Passengers.



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THE MOTOR WORLD

Volume XXIV. New York, U. S. A., Thursday, August 4, 1910. No. 5

## ABBOTT-DETROIT CHANGES HANDS

### Pennsylvania Oil Men Acquire Majority of Stock—Abbott Sells Out and Retires from the Company.

By the purchase of the majority of the stock, a group of men in Warren, Pa., have obtained control of the Abbott Motor Co., of Detroit, Mich., which makes the Abbott-Detroit car. Transfer of the shares was effected on the 29th ult. and the owners are taking immediate possession of the property. It is announced that the present capitalization of $250,000 is to be increased, and that the manufacturing plans of the concern will be expanded greatly.

The members of the purchasing group include C. W. Jamieson, who is slated for the presidency, and who is proprietor of the Warren Refinery Co. and president of the First National Bank, Warren, Pa.; William Muir, president of the Pennsylvania Parafine Works, Titusville, Pa., and of the Blade Oil Works, Warren, Pa.; F. M. Knapp, president of the Jacobsen Machine Mfg. Co. and the Warren Table Works, and director in the Warren and Jamestown Interurban railway, the Allegheny Foundry Co., the Warren Trust Co., and the Western Carbon Co.; George L. Craft and Charles Henry, of Craft & Henry, Warren, Pa., oil producers and refiners; H. M. Preston and M. J. Hammers, the former a large oil producer in the Oklahoma district and the latter secretary and general manager of the Jacobsen Machine Mfg. Co., in which capacities he has evinced business and mechanical talents of a kind suited to the automobile business.

The present organization, so far as concerns the active end of the business, will remain unchanged, except that Hammers will remove to Detroit and join John G. Utz, A. P. O'Connor and J. B. Phillips in the management. The Abbott company was organized in July ,1909, and the control was held by Charles D. Abbott and F. R Poss. Abbott, in retiring from the company, indicates that he will give himself a long vacation before again engaging in the automobile business.

### Rutherford Has a Merger Scheme.

With the Rutherford Rubber Co., of Rutherford, N. J., as its nucleus, a $5,000,000 project is on foot, styled the American Motors Co., for the combination of the tire factory with two or more automobile factories, an engine works, a body factory and a parts factory. Stockholders of the rubber company have been offered share for share exchange of their holdings for the shares of the Motors company, and it is indicated that a majority already are pledged to the exchange. The stock of the rubber company will require $600,000 of the holding concern's shares, and of the $4,400,000 balance, part is to be used for absorbing constituent companies and a part will be offered for sale. The officers of the Rutherford Rubber Co., including A. C. Wescott, president; Spencer Welton, vice-president, and Joseph Miller, secretary, are the leading spirits of the enterprise.

### Simms to Build American Factory.

The Simms Magneto Co., Inc., of New York, which recently was incorporated with $1,000,000 capital, has bought a site at Bloomfield, N. J., where it will build a two-story concrete factory. The building work is to be commenced this month, and the factory is scheduled to be in full operation by next February in the manufacture of Simms magnetos and ignition devices, which heretofore have been made only in England and France. The company states that the factory will employ over 1,000 men.

### Krit President Sells His Interests.

Claude S. Briggs, president of the Krit Motor Car Co., of Detroit, Mich., has sold his interests in the company to the other stockholders and has retired. W. S. Piggins, one of the men prominent in the organization of the company, succeeds him as president, while Kenneth Crittenden, designer for the company, assumes the vice-presidency. B. C. Laughlin retains the office of secretary and treasurer.

## CUT MEASURE AS WELL AS PRICE

### Garage Proprietor Arrested for Gasolene Shortages—Trapped by Inspectors—His Appeal to "Wise" Chauffeurs.

Revealing some of the "tricks of the trade" as to short measure in selling gasolene and in attracting chauffeurs who know what it means to have their "mitt out" for commissions and rake-offs, two arrests were made in New York City on Monday of this week on a complaint that short measure was being given at the Garage De Luxe, 55 East 108th street, the proprietor of which, Edward Underhill, and a negro employe are held for trial. Their arrest followed two visits to the garage by a municipal automobile equipped with a special measured tank of exactly ten gallons capacity, and for which Inspector Mills and Morgan, of the bureau of weights and measures, on each occasion bought ten gallons of gasolene from the garage but received only eight and one-half gallons on the first visit and eight gallons and one gill on the second.

The complaint against Underhill also was accompanied by an affidavit from William H. Meyers, a former employe of the garage, alleging that he had told Underhill that the gasolene pump was giving short measure, and that Underhill told him to "forget it" and to give full measure only when a customer kicked. Meyers further declares that Underhill had told him to "Skin them a little."

While most of the garages have been selling gasolene for 20 cents a gallon, Underhill has been charging only 14 cents, and there has been no little curiosity as to how he could do it. As a result of suspicions as to his method, the Garage Owners' Association co-operated with Commissioner Driscoll, of the bureau of weights and measures, in discovering whether or not short measure was the answer. Underhill declares that the prosecution is part of a plan of other garage owners to put him out

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of business because he sells gasolene cheaper than they do, and explains the short measure given the inspectors by saying that the negro boy who measures it made a mistake in counting the number of gallons.

Highly suggestive of how garages of a certain class cultivate relations with chauffeurs, who in some mysterious way have accessories to dispose of or who are out to "get theirs" in percentages or commission, the Garage De Luxe is responsible for a form letter, which, according to the attorney for the Garage association, Underhill has given circulation among the chauffeurs. Some of the entertaining and illuminating extracts from the letter are as follows:

"We make it a point in our business to always keep our word with a chauffeur. He can always depend on us. If we promise him a commission or a percentage or a job he always gets it. You would be surprised to learn what a lot of money we have paid out to wise chauffeurs who always pull with us and nobody else.

"If you know of any tires, speedometers, tubes, horns, lamps, or tools for sale, come and see us. We will buy for spot cash and you get yours.

"Remember, you always get yours.

"We have helped many a down-and-out chauffeur when out of a job.

"If you know of anyone about to buy a new car, bring him to us and get yours.

"Keep your eyes open and inquire around and we shall soon be making money together.

"Remember, that Underhill is always the friend of the chauffeur, and always keeps his word and makes good."

### Combine Absorbs Four Cab Concerns.

Combining four of New York City's smaller taximeter cab companies and a stable company operating horse drawn vehicles, the Cab & Taxi Co., of New York City, has been formed, with a capitalization of $2,500,000. The companies that are included in the merger are the New York Livery & Auto Co., the Taxi Service Co., the Club Taxi Co., the Union Taxicab Auto Service Co. and the Moulton Stable Co. Allan Lexow, of the New York Auto & Livery Co., is the president of the merger, which claims to have 400 automobile cabs and 700 horse drawn vehicles. The motor cabs will be concentrated in one garage at 142 East Thirty-first street, while the horse drawn equipages will have their headquarters at the stable at 252 West Fortieth street.

### Weed Starts Suits in Minneapolis.

Evincing no "let-up" in its campaign against infringers of the patents relating to tire chains, the Weed Chain Tire Grip Co., of New York City, has instituted damage suits and injunction proceedings against another group of defendants, this time in Minneapolis, Minn. The Weed patent monopoly on tire chains is based on the so-called Parsons patent, No. 723,299, which is owned by the Weed company and which broadly covers non-skid devices separate from the tire itself.

Since the sustaining of the patent by Judge Sanborn, on June 4, in the United States Circuit Court for the Northern District of Illinois, Eastern Division, Seventh Circuit, and the obtaining of injunctions against the Excelsior Supply Co. and the Motor Appliances Co., a wide campaign of prosecution has been undertaken, and a number of injunctions have been obtained. The suits in Milwaukee are against the Morgan & Wright Co., C. S. Marshall, Edwards A. Williams, the United Motor Supply Co., George H. Riebeth, P. G. Nohoff and C. T. Mortonson.

### Handley a U. S. M. Vice-President.

J. I. Handley has been elected a vice-president of the United States Motor Co. He is a Texan, and was in the clothing business prior to going into the automobile business three years ago; when he organized the Maxwell-Briscoe Handley Co., of Dallas, Tex., to distribute Maxwell cars in the Southwest. Two years ago he was made district manager for the Maxwell-Briscoe Motor Co., with offices at the company's plant at Newcastle, Ind. Later he went to Chicago as a district manager, where his record has resulted in his being transferred to the New York office as a vice-president.

### Carmer and LaDue to Make Cars.

After an experience as New York City agents for three makes of unlicensed cars, J. M. Carmer and Charles La Due, together with C. C. Snyder, of New York City, have formed the L. C. S. Motor Co., which has taken a factory in Fort Wayne, Ind., and is to manufacture a 40 horsepower car selling at $1,560. Carmer is president of the concern, with La Due as vice-president. Snyder the secretary and E. C. Walker is treasurer. The concern temporarily is located in the old Pape windmill factory on High street, Fort Wayne, but plans to build a larger factory of its own.

### Company Formed for Hughes' Magneto.

For manufacturing and exploiting an unusual magneto invented by D. B. Hughes, of Cleveland, O., a company has been formed which is to be known as the Lawton-Hughes-Lehman Co., and the product of which is to be styled the L-H-L magneto. Dr. H. A. Lawton, of Warren, O., and J. H. Lehman, of the J. H. Lehman Mfg. Co., New York City, are the associates of Hughes in organizing the enterprise.

### Ward is Benson's Successor at G & J.

Richard Ward has been selected secretary and treasurer of the G & J Tire Co., of Indianapolis, Ind., succeeding Everett S. Benson, who resigned to become secretary of the Hartford Rubber Works Co., at Hartford, Conn. Ward has been with the Rubber Goods Mfg. Co. for about 14 years, serving in different capacities for several of the subsidiary companies before going with the G & J company.

### Changes in Lozier Organization.

Several changes in the organization of the Lozier Motor Car Co. are scheduled to take effect when the general offices of the company are removed to Detroit, Mich., on October 1st. F. C. Chandler, formerly manager of the western sales agencies and foreign department, has been elected to the vice-presidency of the company, and will be in charge of the sales department. C. A. Emise, manager of the New York City sales headquarters, will resign that office to take charge of a new department of publicity and advertising. W. S. M. Mead, manager of the eastern sales agencies, succeeds Emise as New York manager, and also will have charge of the foreign department.

### Will Produce Valve Seating Tools.

The Valve Seating Tool Co. has been organized in Southport, Conn., and has commenced the manufacture of portable electric valve seating tools, including an equipment designed for garage service and having a flexible shaft for valve seating and drilling in inaccessible places. B. A. Bulkley is president of the company and J. W. Perry is treasurer, while William D. Sherwood is the mechanical engineer of the concern.

### Moves Selling Office to Wilkes-Barre.

The Matheson Automobile Co., which handles the factory output for the Matheson Motor Car Co., of Wilkes-Barre, Pa., has removed its headquarters from New York City to Wilkes-Barre, where C. W. Matheson is in charge. The salesrooms at 1886-88 Broadway became a distributing branch, with George H. Duck in charge as New York sales manager, while D. C. MacKay is made head of the accounting department.

### E-M-F Declares $250,000 Dividend.

The E-M-F Co., of Detroit, Mich., has declared a semi-annual dividend of $250,000 on its $1,000,000 capital stock. The dividend was decided upon at a meeting of the board of directors in New York City, and the checks are being sent to stockholders this week.

### Forbes Goes with the Hudson Forces.

Thomas P. C. Forbes, Jr., who at one time was prominently identified with the Overland, has joined the sales organization of the Hudson Motor Car Co., of Detroit, Mich. He will act as a special representative or "ambassador" of the company.

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## JUNE A BOOMING EXPORT MONTH

### Shipments of Cars and Parts Almost Reach Two Million Mark—South America's Remarkable Increase.

With only one of the fourteen geographical divisions taking a smaller amount than in the same month of the preceding year, the export figures for June, 1910, have established another high water mark. Fully $1,894,805 worth of automobiles and parts left this country for foreign markets, as compared with $1,115,864 in June, 1909, the cars numbering 984 and 577, respectively.

In the list of buyers British North America still occupies the premier rank with $661,625 worth, as against $287,901 in the same month of last year. Great Britain, however, crowds her prosperous colony for first place, her own imports of American cars amounting to fully $617,371, as compared with $487,266 in May, 1910, or $436,276 in June, 1909. The third largest purchaser was France, with $241,500, an increase of over 25 per cent. over the figures for June, 1909, when only $178,488 worth of cars were imported by it. The division Other Europe, which for several months has been a heavy buyer of American made automobiles, accounted for $129,525 worth, as compared with $58,336 in June, 1909. Remarkable gains were shown by South America, which increased its purchases over 452 per cent., the figures being $8,382 and $46,209.

The figures for the twelve months ending June, 1910, show substantial gains for every one of the fourteen divisions, which gains in some cases amounted to as much as 200 per cent. British North America leads by a big margin, its imports of American cars amounting to $4,383,487, as against $1,692,980 in the same period of last year. Great Britain again is second with $2,656,214. The total figure for the twelve months was $11,190,220, compared with $5,992,200 for the previous corresponding period, while the cars numbered 5,942 and 2,607, respectively. The record in detail:

| | June | | Twelve Months Ending June | | |
|---|---|---|---|---|---|
| | 1909 | 1910 | 1908 | 1909 | 1910 |
| Automobiles | $1,046,856 | $1,638,321 | $4,656,991 | $5,387,021 | $9,548,700 |
| Parts of | 69,008 | 256,484 | 620,856 | 605,179 | 1,641,520 |
| Automobiles and parts of—Exported to— | | | | | |
| United Kingdom | 436,276 | 617,371 | 1,796,609 | 1,812,091 | 2,656,214 |
| France | 178,488 | 241,500 | 692,365 | 661,525 | 825,904 |
| Germany | 46,454 | 48,006 | 178,914 | 141,056 | 275,241 |
| Italy | 26,666 | 18,163 | 247,357 | 241,660 | 337,614 |
| Other Europe | 58,336 | 129,525 | 186,968 | 329,170 | 550,414 |
| British North America | 287,901 | 661,625 | 951,386 | 1,692,980 | 4,383,487 |
| Mexico | 18,074 | 39,106 | 401,617 | 387,446 | 540,325 |
| West Indies and Bermuda | 6,372 | 7,335 | 250,201 | 255,158 | 413,888 |
| South America | 8,382 | 46,209 | 220,644 | 143,730 | 342,767 |
| British East Indies | 452 | 2,706 | 29,510 | 23,853 | 53,931 |
| British Australasia | 27,616 | 30,638 | 155,722 | 138,871 | 350,193 |
| Other Asia and Oceania | 11,852 | 35,619 | 135,938 | 101,048 | 294,592 |
| Africa | 5,016 | 13,531 | 7,329 | 41,428 | 114,514 |
| Other countries | 3,979 | 3,471 | 23,287 | 22,184 | 51,136 |
| Total | $1,115,864 | $1,894,805 | $5,277,847 | $5,992,200 | $11,190,220 |

### Empire Auto Supply in Bankruptcy.

The Empire Auto Supply Co., 1876 Broadway, New York City, has been petitioned into bankruptcy, the action being against Daniel E. Hydecker, the proprietor. The petitioners are the Republic Rubber Co., $546; Columbia Lubricants Co., $15, and Smith & Haines, $99. It is alleged that Hydecker is insolvent, made preferential payments and permitted the Continental Caoutchouc Co. to obtain a judgment for $240, on which a city marshall took possession of the store. Judge Hand has appointed Charles L. Moreau as receiver and has restrained the city marshall from interfering with the property or the receiver.

### Indiana's Receiver to Re-Open Plant.

A special committee of the creditors of the Indiana Motor Car Co., of Franklin, Ind., has decided that the factory, which was closed on account of the company's difficulties, should be reopened again as soon as possible. The Security Trust Co. of Indianapolis, receiver for the concern, will apply to the court for an order to open the plant and to obtain funds to operate it. The company was putting through a number of Continental cars when it was closed.

### Steely Proposes Various Products.

Proposing to build two-cycle engines, steering gears of new design, pneumatic tires of leather and canvas, and convertible type motor cars, the Steely Auto Engine Co. has opened offices in 407-9 Chamber of Commerce building, Detroit, Mich. The company has been incorporated for $150,000, with the following officers: W. J. McWain, president; M. G. Delaney, vice-president and general manager; E. D. Sowden, secretary; J. J. Marks, treasurer.

### Shock Absorber Maker a Bankrupt.

Charles M. Green, of Boston, Mass., a manufacturer of automobile shock absorbers and other accessories, has filed a petition in voluntary bankruptcy in the United States District Court. His liabilities are $26,603, of which $20,987.75 is unsecured, while the assets are scheduled at $447.75.

## BALK PROBING OF TIRE SECRETS

### Gilbert and Bennett Obtain a Stay of Moto Bloc's Proposed Examination—Involves Further Delay.

Again the baring of the secrets of the Dealers' Protective Association and the disclosure of the agreement among the tire manufacturers as to the elimination of price cutters from the selling list has been delayed in consequence of the resistance of Lee M. Bennett, the manager of the association, and Joseph W. Gilbert, of the Continental Caoutchouc Co., to the attempts of the Moto Bloc Import Co., of New York, to compel them to undergo an examination. The examination was scheduled for Tuesday of this week, but Bennett and Gilbert succeeded in obtaining another stay, which temporarily relieves them of the necessity of answering the questions which the Moto Bloc lawyers have prepared.

After the Moto Bloc company, through its president, Leon D. Kaufman, had obtained from Supreme Court Justice Giegerich an order for the examination of Bennett and Gilbert before trial, in order that Kaufman might obtain information concerning the association as an aid to his bringing suit against it under the Donnelly anti-monopoly law of New York state, Bennett and Gilbert obtained a stay from Justice Ford. The propriety of the order was argued before Judge Ford and he subsequently overruled their motion that the order be vacated. The actual examination then was scheduled for Tuesday, 2d inst.

The hearing did not take place, however, as Bennett and Gilbert carried the matter to the Appellate Division. Kaufman's attorneys, not to be balked in their proposed inquiry, have filed a motion before Judge Clarke to have the stay vacated, in order that the examination may proceed and that they may compel Gilbert and Bennett to produce the minutes and records of the Association and supply the facts as to its inside workings. Judge Clarke has not yet passed on this motion, the fate of which largely will determine whether the examination ultimately will take place on the lines proposed by the Moto Bloc attorneys in their investigation.

### Importation of Cars Declines.

Decline in the importation of foreign motor cars into the United States is disclosed in the record for the twelve months ending with June, as compared with the fiscal year ending with June, 1909. The number of cars fell from 1,624 to 1,473 and the value from $2,905,391 to $2,851,446. During the month of June the imported cars numbered 114, with a value of $233,229, as against 131, with a value of $246,291, during June a year ago.

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## THE WEEK'S INCORPORATIONS.

Wilmington, Del.—Federal Motor Co., under Delaware laws, with $400,000 capital; to manufacture and deal in motor propelled vehicles.

Boston, Mass.—Boston Garage Co., under Massachusetts laws, with $50,000 capital; to maintain a public garage. Corporator—J. D. Smith.

Detroit, Mich.—Steeley Auto Engine Co., under Michigan laws, with $150,000 capital; to manufacture automobile engines. Corporators—M. G. Delowey, Chas. M. Steeley.

Cleveland, O.—Kissel Kar Co., under Ohio laws, with $10,000 capital; to deal in automobiles and conduct a garage. Corporators—E. H. Put, A. Lezius, E. E. Gott, W. B. Davis.

Chicago, Ill.—Tansill Motor Service, under Illinois laws, with $1,000 capital; to operate automobiles for rent and hire. Corporators—R. E. Tansill, Mary E. Tansill, Charles M. Rapp.

Nashville, Tenn.—Southern Automobile League, under Tennessee laws, with $100,000 capital. Corporators—J. E. Lea, Geo. W. Blair, R. Mount Beattie, J. J. Smith, R. B. C. Howell.

New York City, N. Y.—Ethylight Co., under New York laws, with $350,000 capital; to manufacture lamps and lighting devices. Corporators—R. E. Taylor, R. C. Shaal, J. V. Usera.

Plainfield, N. J.—Automobile Distributing Co., under New Jersey laws, with $2,500 capital; to deal in automobiles. Corporators—A. B. Laing, A. Milne, H. W. Marshall, E. M. Laing.

Newark, N. J.—Wallace-De Wilde Co., under New Jersey laws, with $10,000 capital; to manufacture automobiles. Corporators—Henry A. O'Brien, John B. Wallace and Herbert De Wilde.

Danbury, Conn.—Green Auto Co., under Connecticut laws, with $30,000 capital; to manufacture automobiles and parts. Corporators—John W. Green, Samuel E. Ryder, Clayton G. Haviland.

Jackson, O.—Jackson Spoke & Rim Co., under Ohio laws, with $3,000 capital; to manufacture automobile and carriage wheels and parts thereof. Corporators—John Robbins and others.

Madison, Wis.—Ritter Automobile Co., under Wisconsin laws, with $25,000 capital; to manufacture, deal in and repair automobiles. Corporators—H. R. Ritter, J. C. Harper, Homer Z. Webster.

Boston, Mass.—American F. N. Co., under Massachusetts laws, with $20,000 capital; to do general automobile business. Corporators—Earle L. Orrington, Henry H. Wilcox, Daniel B. Ruggles.

Portland, Me.—Eastern Blaugas Co., under Maine laws, with $1,750,000 capital; to manufacture an illuminant known as Blaugas. Corporators—C. E. Eaton, A. F. Jones. No capital has been paid in.

Rome, N. Y.—Stevens Mfg. Co., under New York laws, with $50,000 capital; to manufacture and sell carburetters, motors and automobile supplies. Corporators—S. B. Stevens, A. L. McAdam, T. I. Wetzel.

Fitchburg, Mass.—Bickford Auto Livery Co., under Massachusetts laws, with $10,000 capital; to do general automobile business. Corporators—O. E. Bickford, Richard B. Lyon, Ernest C. Ford, Richard C. Ford.

St. Paul, Minn.—St. Paul Independent Auto & Garage Co., under Minnesota laws, with $100,000 capital; to deal in automobiles and maintain a garage. Corporators—J. A. Hedlund, Lewis Lee, W. A. Bergen.

Toledo, O.—Toledo Timetest Tire Co., under Ohio laws, with $10,000 capital; to manufacture automobile tires. Corporators—E. H. Winkworth, F. W. Coughling, F. E. Miller, H. W. Isenberg, Charles Weirich.

Cleveland, Ohio—Cleveland Motor Truck Mfg. Co., under Ohio laws, with $250,000 capital; to manufacture commercial motor vehicles. Corporators—W. B. Stewart, G. M. Cottrell, H. E. French, F. C. VanCleaf.

Newark, N. J.—Commercial Maintenance & Motor Co., under New Jersey laws, with $100,000 capital; to operate automobiles for rent and hire. Corporators—Robert O'Gorman, Samuel A. Halsey, George D. O'Gorman.

Westbrook, Me.—Westbrook Garage & Machine Co., under Maine laws, with $10,000 capital, of which $300 has been paid in; to manufacture, deal in and repair automobiles. Corporators—John T. Skillins, Alexander Speirs.

Akron, O.—Automobile & Supply Co., under Ohio laws, with $10,000 capital; to deal in automobiles and accessories. Corporators—George S. Patterson, H. A. Stahl, E. J. Thorbaben, F. C. Carroll, C. P. Colley.

Brooklyn, N. Y.—Cooper Auto Exchange, under New York laws, with $25,000 capital; to deal in new and second-hand automobiles. Corporators—Charles C. Cooper, James H. Lent, William O. Lent, Herbert A. Miln.

Asbury Park, N. J.—Aero & Motor Club of Asbury Park, under New Jersey laws, with $25,000 capital; to conduct automobile and aeroplane exhibitions and races. Corporators—Geo. W. Pittenger, Alonzo R. Parsons, James G. Warner.

New York City, N. Y.—Lovelace Aeroplane and Motor Co., under New York laws, with $25,000 capital; to manufacture and sell motors, engines and self-propelling vehicles. Corporators—H. Amerman, F. W. Marshall, E. M. Morrison.

New York City, N. Y.—Cab & Taxi Co., under New York laws, with $2,500,000 capital; to consolidate and take over the taxicab service of several taxicab companies and livery stables of New York. Corporators—Emil Kaestner, George B. Handy, Manuel Fernandes, Frederick Reis, Robert Gerbracht.

### Increases of Capital.

Indianapolis, Ind.—Stutz Auto Parts Co. increases capital from $10,00 to $50,000.

Moline, Ill.—Velie Motor Vehicle Co. increases capital from $400,000 to $600,000.

Chicago, Ill.—F. A. L. Motor Co. increases capital from $200,000 to $900,000.

Gloversville, N. Y.—Gloversville Garage Co. increases capital from $15,000 to $40,000.

Toledo, O.—Willys-Overland Co. increases capital from $2,000,000 to $6,000,000.

Cleveland, O.—Western Reserve Motor Car Co. increases capital from $50,000 to $100,000.

Chicago, Ill.—Excelsior Motor & Mfg. Co. increases capital from $60,000 to $250,000.

### Ajax-Grieb Managers Meet at Trenton.

Gathering from all parts of the country the prominent men in its selling force, and giving them opportunity to see what actually is being done at the factory and to exchange ideas for the common good, the Ajax-Grieb Co. held its second annual convention of branch managers at the factories in Trenton, N. J., on Wednesday to Friday of last week, 27th, 28th and 29th ult. Every phase of the business was given attention, and suggestions meeting with the favor of the majority will find their way into the sales policy for Ajax tires next year. Those in attendance at the convention included William G. Grieb, president; L. P. Destribate, vice-president; Harry Grieb, treasurer; H. W. Stimpson, assistant secretary-treasurer; R. S. Ireland, sales manager; Horace De Lisser, director and former president; F. S. Cutler, New York branch manager; A. H. McIntyre, Boston; Joseph Kier, Philadelphia; H. M. De Silva, Chicago; C. R. Van Auken, Detroit; F. S. Pierce, Denver; J. H. Huziker, Minneapolis; Charles Sterne, Atlanta; E. Storms, Jr., James Neville, Charles Towns and W. J. Jackson, cashier and auditor.

### Palmer & Singer Straightens History.

Its name having been brought up in connection with the earlier history of the Matheson Motor Car Co., of Wilkes-Barre, Pa., by reason of the former relations existing between them, the Palmer & Singer Mfg. Co., of New York City, is taking steps to correct any impression that it repudiated its contract with the Matheson company in 1908, and explains that the Matheson makers canceled the contract following a refusal of Palmer and Singer to accept the 1908 cars until certain necessary alterations were made. The factory, it is explained, later settled a suit brought by Palmer and Singer, by the payment of a compromise amount.

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## IN THE RETAIL WORLD.

Under the style the Palatka Auto & Supply Co., a new company has been formed in Palatka, Fla. T. J. Barnett is the president of the concern.

Theodore Young, of Syracuse, N. Y., is building a garage and salesroom at 207 Noxon street in his home town. Peerless automobiles will be featured.

Stanley Horner, who recently took the agency for the Cole car for Washington, D. C., has leased a salesroom and garage. It is located at 1333 14th street, northwest.

The Codman Square Garage, Dorchester, Mass., was destroyed by fire last week. The entire building, 635-637 Washington street, was gutted, the damage amounting to $10,000.

The Anderson Carriage Co. has added a garage to its building at 188 Madison street, Evanston, Ill. The new building is one story high, 100 feet square, and will cost about $5,000.

The Ryan Motor Co. is the style of a new company which has established a salesroom at 1120-1122 Locust street, Des Moines, Ia. Chalmers cars will form its main stock in trade.

The Utah Motor Car Co., Salt Lake City, Utah, has moved into its new quarters on State street, where it will continue to handle Buick cars. Packard trucks also will be sold by the concern.

Cook & Wright, who have conducted a garage on North Main street, Sherbourne, N. Y., have dissolved partnership by mutual consent. J. H. Wright will continue the business under his own name.

D. Vannatte Kennedy, owner of the Springfield Garage, in the Illinois city of that name, has disposed of the Hupmobile agency to Stewart Allen. Kennedy probably will join the Buick forces at Detroit.

George A. Harvey has leased the foundry building on Chapel street, Lewiston, Me., and is transforming it into a garage and repair shop. The building is two stories high, fireproof, and covers over 4,000 square feet.

The Western Motor Supply Co., recently organized at Minneapolis, Minn., has opened offices and salesrooms at 10th street and Nicollet avenue, where it will handle accessories. R. A. Steckbauer is president of the concern.

Under the style the Klemme Auto Co. a new concern has opened up in Davenport, Ia. Its salesrooms are located at 106-114 Brady street, where Oldsmobiles will be shown. Louis Otto is the sales manager of the new firm.

Julius Debits, of Chicago, Ill., has purchased the Overland Garage at 113 North 40th avenue and will act as the Overland distributor for that part of Chicago. Before entering the automobile selling business he was secretary of the John Hemwall Co.

The E-M-F Co. has leased the Kimball garage at 2026-28 Farnam street, Omaha, Neb. The company formerly was called Berger Auto Co., but recently was made an E-M-F branch. The Kimball company has a new garage across the street from its old location.

Intending to establish service stations in New York City along the line of its stations in Detroit and Chicago, the Anderson Carriage Co., makers of the Detroit electrics, have opened a New York branch at Broadway and 18th street. Albert Weatherby is in charge.

The Consolidated Motor Sales Co. is the style of a new company which just has opened up in Los Angeles, Cal., at Nos. 1216-1218 South Olive street. Ray Costerisan, a former mechanical engineer, is general manager of the firm, which will specialize in Marathon cars.

George W. Stephens and Fred S. Copley, agents for the Cole car in Chicago, Ill., have added the Clark car to their line, and have incorporated under the style the Stephens-Copley Co. Their territory embraces all of Illinois and Wisconsin, and parts of Iowa, Indiana and Michigan.

E. E. Tolksdorff, an American resident of Nueva Gorona, Isle of Pines, Cuba, is about to embark in the automobile business and establish a garage there. He has been in this country for several weeks, and finally has secured the agency for E-M-F and Flanders cars, of which he has ordered 25.

E. J. Welsh, a livery man at South Town, Ill., has found the horse business too slow and has entered the automobile field. All his horses and carriages were sold at auction and his stables have been transformed into a garage. Renting cars will be relied upon to keep the business on a paying basis.

Several automobile owners of Packingtown (South St. Paul), Minn., have formed a company for the purpose of erecting a co-operative garage and repair shop. The new building will be located on Concord street, near Grand avenue. The men interested in the project are M. O'Toole, E. Gardie, E. W. Frick, J.Coates, J. P. Nolan.

The Broughton & Cook Co., of Danville, Ill., has moved into new quarters on West Main street. The moving was accomplished in a unique manner; one of the larger automobiles belonging to the firm was stripped of its body, a wide platform erected on the chassis, and the machinery, furniture and other paraphernalia was carried on this improvised truck.

Within a few days the new salesrooms and garage erected by James E. Plew, at Wabash avenue and 27th street, Chicago, Ill., will be ready for occupancy. The building is four stories high, contains 100,000 square feet of floor space and cost $200,000. It is one of the most sumptuously furnished and best equipped automobile buildings in the country.

C. B. Cleland and J. M. Brice, both of Des Moines, Ia., have formed a partnership and bought the property at the southeast corner of 10th and Locust streets for $50,000. They will build a garage, 66 x 130 feet. Cleland is the owner of a string of grocery stores operated in Des Moines, while Brice formerly was the city salesman for the Warfield-Pratt-Howell Co.

In a disastrous fire on July 28th, a business block was destroyed in Pittsburg, Pa. Among the losers were the Liberty Automobile Co., 28 motor cars, and the Chase Motor Wagon Co., three large motor trucks. Both of the buildings in which these two companies did business were burned to the ground. The fire started at 5995 Center avenue and caused a total damage of over $100,000.

Sam Johnson, of the Johnson Auto Co., Inc., Los Angeles, Cal., has purchased the Pacific Electric Garage and will conduct the same in the future with Elton Isbell, a local real estate dealer. Besides managing the new business, he will continue in his capacity as president of the Johnson company, which makes a specialty of manufacturing parts for the Tourist and other California automobiles.

Sixty gallons of gasolene, exploding in the open street in front of the garage of the Imperial Automobile Co., on Second street, between Third and Second avenues, New York City, shattered every window in the block and set fire to an adjoining house. Before the flames could be brought under control an automobile had been destroyed, a tenement house demolished and damage amounting to over $20,000 been caused.

Facing two parallel streets, the new garage of Albert Lazaro, in Boston, Mass., is the only one in the Hub City to be thus favored. The building is located on Ferdinand street, and is divided into several parts by the instalment of "fire-doors." This arrangement is a new feature in garage building, as the "doors" can be folded back close to the wall, giving an uninterrupted floor space of something like 7,000 square feet.

### Gans Goes to White's Home Office.

E. W. Gans, southern manager for the White Company, of Cleveland, O., with headquarters at Atlanta, Ga., has been promoted to the home office in Cleveland to exercise a general supervision over the southern territory. W. H. White, who has been cashier of the company's Atlanta branch, succeeds Gans as Atlanta manager.

### Sheldon Axle Opens Chicago Office.

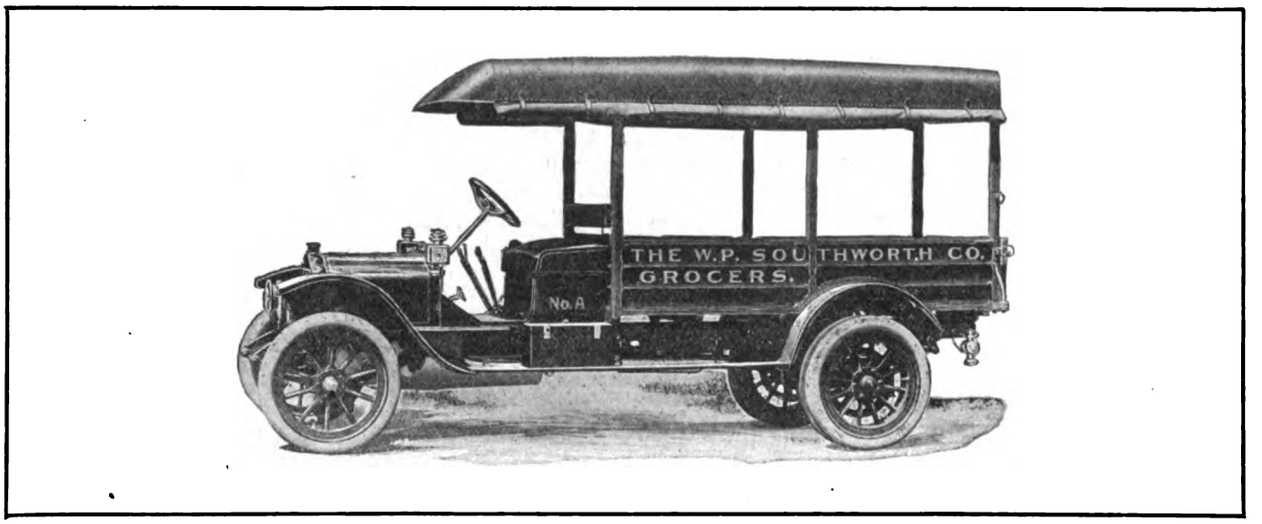
The Sheldon Axle Co., of Wilkes-Barre, Pa., has opened an office and salesroom in Chicago, Ill., where it will maintain a full line of samples of automobile axles and springs, together with its other lines. The Chicago office is at 68 East 12th street, and is in charge of S. B. Russell.

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## Engineering's Need for Organization.

After five years of uneventful and passive existence the Society of Automobile Engineers stand upon the threshold of a most promising and useful career. Its purpose early was characterized as that of a "clearing house" for engineering ideas such as might be hatched in the automobile industry. But while it served to produce a large number of interesting and informing documents upon various questions connected with automobile manufacture, its real accomplishments were limited by its restricted membership and its lack of general representation.

The combination of circumstances which has brought the society to its position of present importance mainly results from the natural growth of the industry itself. A "babel of tongues" brought to a halt the first great engineering exploit which Biblical history records. And the modern method of avoiding the underlying condition which is reputed to have prevented the completion of the Tower of Babel is the organization of conferences and the establishment of the conventions. The automobile business at length has attained a magnitude and importance which renders absolutely necessary some sort of technical regulation.

This the organized engineers can accomplish to better purpose than any other sort of association, for the reason that they are absolutely free from trade animus and are working in a cause in which their own interests and those of their employers are absolutely merged. Without such an opportunity for exchanging engineering information and for reducing common problems to their lowest terms the waste effort expended would mount to large proportions. Indeed the effects of such waste already are being felt.

Under its present active administration and with a membership which fast is assuming workable proportions, the society should become as useful in its own limited field as are the great engineering and scientific bodies which grace the recognized professions. There is the chance that its work may be carried to needless extremes; that it may be exploited for private ends; that trade interests may seek to dominate it, but there is no present hint of such exploitation. Just now its outlook is most promising and the Detroit meeting, doubtless the most significant in its existence, may be considered as equally significant to the industry as a whole.

## Lingering Deficiencies in Brakes.

While recognition of the importance of brake design has resulted in a general improvement of braking equipments during the past two or three years, the fact remains that not a few cars now in use are inadequately equipped in this respect. If the truth of the assertion require demonstration, there may be instanced a recent endurance run in which 22 of the surviving cars were submitted to the standard brake and clutch test, following a run of something over 800 miles. Only seven cars escaped penalization, while 10 suffered penalties for trouble with one set of brakes and six had trouble with both sets. On 13 of the cars the hand brakes were at fault and on seven the foot brakes gave trouble.

Regardless of whether they were old cars or new, machines that had seen arduous service or those which were in the best possible condition prior to the run, practically two-thirds of the lot developed trouble in the braking system which might have proved a menace to safety in case of emergency. Assuming that two-thirds of the cars under test were machines either equipped with inadequate brakes or those which had not been cared for properly, and that all were more or less affected by the strenuous nature of the run just completed, the condition is not one to be regarded without concern. For cars with inadequate brakes are dangerous cars to drive and dangerous cars to meet on the road.

It is believed that designers at the present time are doing their best to equip the machines which pass under their hands with proper equipment in every respect. Is it also true that agents and dealers are equally watchful in urging upon their customers the importance of keeping the brakes in good condition? Many agents and a number of manufacturers maintain regular used car departments in which second-hand cars are refitted prior to being put on the market to be sold. Are such cars invariably equipped with new brakes when it is known that their original equipments were not perfectly trustworthy?

The subject is one of never-ending importance, and for the very simple reason that most drivers are accustomed to place too much confidence on their brakes and to use them more than is necessary. This habit not only makes for bad driving and encourages motorists in taking chances on the road, but it also makes for high depreciation in the entire mechanism and more especially in those parts which are rendered most important by an emergency.

## Standardization and Its Effects.

After a number of years of misconception it is high time that the word "standardization" be given a new interpretation in the eyes of the motoring public. Due to the activities of the daily press, quite as much as to any other cause, motorists were given to understand two or three years ago that the adoption of such standards as the manufacturers then were reaching toward might have a repressive effect upon the industry at large. The inference was permitted to go the rounds that standardization meant the elimination of individuality.

As a matter of fact the adoption of the really useful standards of manufacture does not concern the motorist in any way save

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that it provides him with a better car at lower cost. The use of the word must not be permitted to remain in a limited application referring to the number of cylinders in the motor, the type of change gear, the method of final drive or the shape of the body. Such similarities observable in different products may result from standardization, but more often they result merely from devotion to style or principle.

In the real work of standardizing the industry, which now seems in a fair way of being accomplished, five important branches are to be considered, none of them dealing with the principal parts of the car. And none of them is destined to affect the individuality of its design in any degree to the limitation of legitimate evolution or the exercise of the personal discretion of the manufacturer.

First of all, a standard of nomenclature is to be desired above all things, so that the language of the industry may be put upon an intelligible footing; so that all transactions dealing with parts and supplies may be carried on as nearly as possible in a universal tongue. Second—and in this connection much useful work already has been accomplished—it is necessary to have a standardization of materials, both as to metallurgical composition and treatment and method of specification. Third, the multiplication of similar operations in different portions of the same product and in similar relations in different products calls for a standardization of processes, of machine tools and of shapes. This leads directly to the grouping of certain connecting parts, such as bolts, nuts, studs, pins, levers, shafts and certain simpler form of mechanism under classified heads, after the fashion already undertaken by the mechanical branch of the Licensed Association of Automobile Manufacturers during its brief but efficient career. Finally, there is pressing need for a standardization in accessories and attachments to a degree that will permit such fittings to be mounted on the car effectively and without involving expensive or ticklish operations to be placed in the hands of workmen of doubtful skill.

There are still those who fear the effects of standardizing the industry, particularly in the matter of certain common forms and fittings. It is argued that the tendency may be to carry the thing too far and to work inconvenience upon the owner; it is feared that the industry may thus isolate itself from other mechanical efforts. Perhaps there also remain in the minds of those who oppose it some remnants of the old notion that complete standardization would involve the painting of all cars in one color, for instance, and the elimination of wide option in buying. But this is an error. The work which the manufacturers have left undone and which the engineers now are undertaking for themselves, if skilfully carried through, bodes nothing but good for the industry.

## COMING EVENTS

August 3-5, Galveston, Tex.—Galveston Automobile Club's beach races.

August 6, Philadelphia, Pa.—Quaker City Motor Club's race meet at Point Breeze track.

August 6, Wildwood, N. J.—North Wildwood Automobile Club's beach race meet on Ocean drive.

August 9-10, Brooklyn, N. Y.—Brooklyn Motor Vehicle Dealers' Association's 200 miles reliability contest on Long Island.

August 11, Algonquin, Ill.—Chicago Motor Club's annual twin hill climb.

August 11-21, Rochester, N. Y.—Automobile Club of Rochester's annual tour.

August 12-13, Philadelphia, Pa.—North American's reliability run for commercial motor vehicles to Atlantic City, N. J., and return.

August 13, Newcastle, Ind.—Newcastle Fair Association's race meet.

August 13, New York City—Motor Racing Association's matinee at Brighton Beach track.

August 15—Start of second annual Munsey Historical Tour from Philadelphia, ending at Washington, D. C., 1,700 miles.

August 19-20, Brighton Beach, N. Y.—Motor Racing Association's 24 hours' race at Brighton Beach mile track.

August 20, Columbus, O.—Columbus Automobile Club's race meet.

August 23, Cheyenne, Wyo.—Cheyenne Motor Club's race meet on motordrome.

August 26-27, Elgin, Ill.—Chicago Motor Club's road race and speed carnival.

August 30, Washington, D. C.—Automobile Club of Washington's hill climb.

August 31, Minneapolis, Minn.—Minnesota State Automobile Association's reliability run.

August 31-September 8, Kansas City, Mo.—Automobile Club of Kansas City's reliability contest.

September 3 and 5, Indianapolis, Ind.—Grand Circuit meeting on Motor Speedway

September 3, Wildwood, N. J.—North Wildwood Automobile Club's reliability run to Philadelphia.

September 5, Denver, Col.—Denver Motor Club's 200 miles road race.

September 5, Wildwood, N. J.—North Wildwood Automobile Club's beach race meet on Ocean drive.

September 5-10, Minneapolis, Minn.—Automobile races at state fair grounds.

September 7-10, Lyons, N. Y.—Wayne County Agricultural Society automobile races.

September 7-10, Buffalo, N. Y.—Automobile Club of Buffalo's touring reliability contest; 800 miles.

September 9-10, Providence, R. I.—Rhode Island Automobile Club's annual meet at Narragansett Park.

September 10, San Francisco, Cal.—Automobile Club of California's Portola road race in Golden Gate Park.

September 10-12, New York City—Motor Contest Association's Catskill tour and hill climb.

September 15, Oklahoma City, Okla.—Oklahoma Automobile Association's hill climb.

September 17, Norristown, Pa.—Norristown Automobile Club's race meet.

September 18, Los Angeles, Cal.—Annual road race up Mount Baldy.

September 18, Syracuse, N. Y.—Automobile Club of Syracuse-Syracuse Automobile Dealers' Association joint racemeet at Fair Grounds track.

September 21-23, Louisville, Ky.—Louisville Automobile Club's annual reliability and endurance run.

September 24, Santa Monica, Cal.—Southern California Automobile Dealers' Association's annual road race; 200 miles.

October 1, Springfield, Ill.—Automobile races at state fair grounds.

October 1, Mineola, L. I.—Sixth annual Vanderbilt Cup race on Long Island Motor Parkway, under the auspices of the Motor Cups Holding Co.

October 7-8, Indianapolis, Ind.—Closing meet on Indianapolis Motor Speedway.

October 8, Philadelphia, Pa.—Quaker City Motor Club's third annual 200 miles road race in Fairmount Park.

October 10-15, Hot Springs, Ark.—Automobile races at Arkansas State Fair.

October 15, Mineola, L. I.—Motor Cups Holding Co., 278 miles international road race on Motor Parkway, for the Grand Prize of the Automobile Club of America.

October 27-29, Dallas, Tex.—Dallas Automobile Club's race meet.

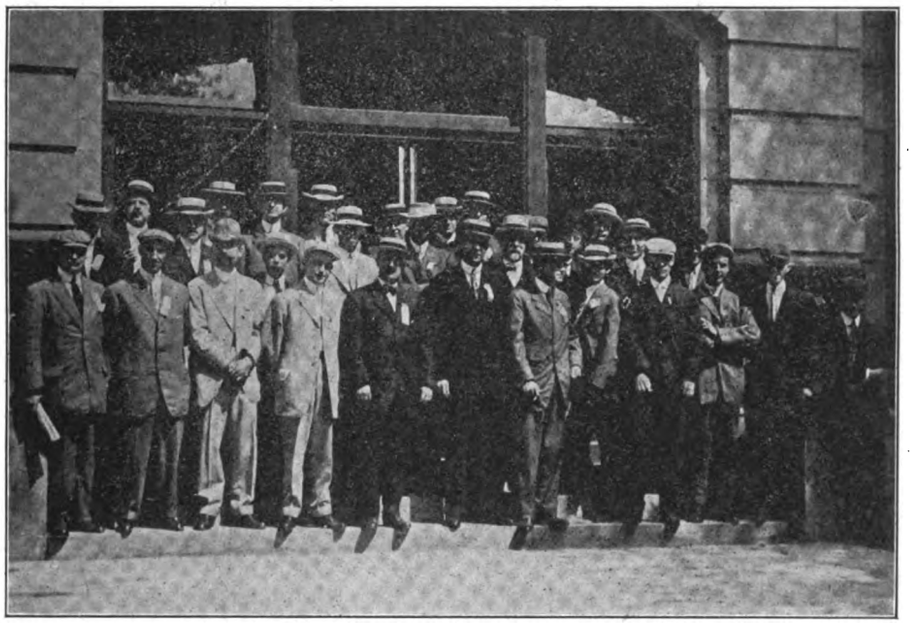
November 24, Savannah, Ga.—Savannah Automobile Club's road race.

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# ENGINEERS IN SESSION

**Record Attendance at Mid-Summer Meeting of Society of Automobile Engineers at Detroit—Papers Presented Cover a Wide Range of Subjects.**

With more than twice as many members present as had attended any previous meeting during the five years of its existence, and with a bulky program opening up subjects for discussion in connection with almost every topic associated with the automobile designer and constructor's occupation, the mid-summer meeting of the Society of Automobile Engineers, which was held in Detroit on Thursday, Friday and Saturday of last week, 28th, 29th and 30th ult., afforded encouraging evidence of the work which has been done in bringing it into a state of useful activity.



GROUP OF S. A. E. MEMBERS AT THE E-M-F FACTORY

Since the previous meeting, held last January, the S. A. E. has become acknowledged successor and residuary legatee of the now defunct mechanical branch of the Licensed Association of Automobile Manufacturers, inheriting that body's store of data and its standards for materials and small parts. In a broader and more general way, its leaders now plan to carry on the work begun by the mechanical branch.

Without doubt the society's most valuable heritage from the mechanical branch is in the person of Secretary Coker F. Clarkson, who, in resigning as assistant general manager of the A. L. A. M. and assuming the general management of the engineers' society, has brought the ripe experience gained in the administration of the affairs of the branch. In devoting his entire time to the work he has succeeded not only in galvanizing it into activity along useful lines, but has carried through a membership campaign to such good purpose that no less than 60 new names have been added to the roster since the January meeting. The latest group of new names to be annexed was announced last week as follows: Harry H. Bassett, Weston-Mott Co.; Fred A. Bigelow, Carpenter Steel Co.; Charles Boyden, American Motor Car Co.; Professor W. H. Bristol, Waterbury, Conn.; A. G. Class, Falls Machine Co.; Fred Bizantz, Gramm Motor Car Co.; E. L. Franch, Crucible Steel Co. of America; Elwood Haynes, Haynes Automobile Co.; C. W. McKinley, Willys-Overland Co.; W. C. Pratt, Hudson Motor Car Co.; Ernest E. Sweet, Cadillac Motor Car Co.; A. P. Sloan, Hyatt Roller Bearing Co.; George B. Norcross, Becker Steel Co.; Fred I. Tone, American Motor Car Co.; Hugh Kerr, Thomas, Pierce-Arrow Motor Car Co.; C. L. White, E. R. Thomas Motor Co.

In addition to the consideration of a long list of papers dealing with engineering matters, the meeting was enlivened by discussions of various projects for enhancing its usefulness and by more or less informal debates upon some of the live questions of the day in connection with the development of the industry. A break in the program occurred on Friday morning, when the engineers in various groups visited the plants of the Aluminum Castings Co., Burroughs Adding Machine Co., Cadillac Motor Car Co., Chalmers Motor Co., Detroit Steel Products Co., E-M-F Co., Gear Grinding Machine Co., Packard Motor Car Co., Timken-Detroit Axle Co.

The subsequent luncheon, as guests of the Timken-Detroit Axle Co., and afternoon boat trip, as well as the dinner in the evening, the society dinner on Thursday night and other festivities, afforded the relaxation necessary to proper digestion of the technical pabulum. Those present at the meeting were as follows:

H. K. Holsman, Plano, Ill.; F. P. Nehrbas, Buffalo, N. Y.; J. T. Pratt, Bay City, Mich.; F. E. Watts, Detroit; C. E. Cox, Minneapolis; N. A. Wolcott, Warren, Ohio; Bertram Bailey, St. Paul, Minn.; H. Vanderbeck, Canton, Ohio; C. D. Cramp, Philadelphia; A. W. Morris, G. A. Weidely, Indianapolis; Harold L. Pope, Wilkesbarre, Pa.; Scott Van Etten, Richmond, Indiana; J. P. Lavigne, Detroit; Henry G. Chatain, Schenectady, N. Y.; W. A. Frederick, Muskegon, Mich.; M. T. Lothrop, Syracuse, N. Y.; E. T. Georges, R. G. Lewis, R. E. Northway, Detroit; H. H. Brown, Boston, Mass.; C. E. Reddig, Hartford, Conn.; E. Gruenwald, East Moline, Ill.; P. L. Hussey, Detroit; E. W. Winans, Walkerville, Ontario; Walter C. Baker, Cleveland, Ohio; J. A. Anglada, New York; A. H. Ehle, Philadelphia; D. T. Brownlee, Indianapolis.

W. H. Cameron, Toledo, Ohio; F. W. Spacke, Indianapolis; G. A. Gemmer, Detroit; E. A. Nelson, F. H. Floyd, Detroit; Christian Girl, Cleveland; H. P. Dodge, Toledo, Ohio; C. M. Foster, Toledo, Ohio; Raymond Gilley, Passaic, N. J.; C. E. Whitney, Hartford, Conn.; C. E. Totman, Hartford, Conn.; B. B. Neuteboom, Kalamazoo, Mich.; E. L. Smith, Cleveland, Ohio; H. S. Baldwin, Swampscot, Mass.; H. M. Swetland, New York; A. F. Shore, New York; C. L. Halliday, Jackson, Mich.; B. A. Gramm, Bowling Green, Ohio; Geo. S. Salzman, Buffalo, N. Y.; A. M. Dean, Wilkesbarre, Pa.; L. C. Freeman, Detroit; C. C. Hinckley, Detroit; George S. Case, Cleveland, Ohio; D. F. Graham, Bristol Conn.; B. C. Ellis, Medford, Mass.; V. G. Apple, Dayton, Ohio; E. S. Sangren, Detroit; R. P. Johnson, Muncie, Ind.; W. P. Kennedy, New York; A. R. Miller, New York; F. H. Berger, Wm. V. Lowe, Fitchburg, Mass.; W. H. Radford, Detroit; Adam Haskell, North Chicago, Ill.; W. G. Wall, Indianapolis; Frank Johnson, Detroit; Edward Sokal, Chicago; H. S. White, Detroit; I. W. Adams, Detroit; Harold N. Anderson, Dayton, Ohio; Jerome J. Aull, Cincinnati, Ohio; Elmer R. Ritter, Cincinnati, Ohio; C. H. Taylor, Detroit; Arthur Holmes, Syracuse, N. Y.; W. S. Hovey, Three Rivers, Mich.; G. E. Merryweather, Cleveland; M. R. Hutchinson, New York; J. O. Heinze, Lowell, Mass.

S. V. Hunnings, Schenectady, N. Y.; A. C. Bergman, New York City; Guy W. Vaughn, Kingston, N. Y.; John A. Mathews, Syracuse, N. Y.; Lawrence Whitcomb, Boston; T. V. Buckwalter, Altoona, Pa.; C. E. Franquist, New York; George C. McMullen, Buffalo; W. F. Abel, Cleveland, Ohio; A. J. Slade, New York; Bruce Ford, Philadelphia; D. Ferguson, Buffalo; John H. Hartner, Cleveland, Ohio; Edward Ehler, Buffalo; H. G. McComb, Buffalo; E. B. Jacobson, Pittsfield, Mass.; John A. Crow-

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ley, New York; C. L. Hastings, Pittsburg; H. E. Coffin, Detroit; E. T. Birdsall, Detroit; E. Gruenfeldt, Cleveland; George E. Bowerson, Fort Wayne, Ind.; W. H. Staring, Cleveland; George W. Dunham, Detroit; W. H. Vandervoort, East Moline, Ill.; D. D. Rowlands, Anderson, Ind.; Frank H. Floyd, Detroit; J. Coapman, Detroit; C. Clemens, Cleveland, Ohio; Otto Heins, New York; H. J. Edwards, Dayton, Ohio; R. S. Fend, Chicago; W. H. Tuthill, Chicago; James M. L. Howe, Buffalo, N. Y.; R. C. McLaughlin, Oshawa, Ontario; H. Kerr-Thomas, Buffalo.

## PROGRESS IN GEAR-GRINDING.

How much of the success of the modern automobile is dependent upon new and highly perfected manufacturing processes is known only to those who are thoroughly familiar with the engineering side of the industry. It is a fact, nevertheless, that advancement in machine tool invention and design is responsible for a vast deal of the observed betterment in ordinary running conditions, and that progress in this direction is being made at a very rapid rate. Illustrative of this sort of development is the rendering of gears quiet by grinding. Gear grinding is one of the latest developments in machine tool practice. It not only provides for better gear action but it also permits economies through the adoption of otherwise inappropriate materials. The paper read by A. Ward threw considerable light on the most recent steps which have been taken in this most important branch of production engineering.

"The automobile engineer in considering the gear problem faces several conditions," said he. "The gears used must be sufficiently strong and so designed as to withstand not only a constant operating load, but also sudden shocks that may arise from inexperience or other causes. Also the public demand a quiet-running gear. There must be skin-hardening of the surface of the gear, to give commercial life. After determining the load factor, some suitable pitch is chosen, and the form of tooth and the pressure angle are decided upon. The material to be used is also determined. With the above data perfect gears could be secured to meet all conditions except as to wearing life. The hardening of gears sets up inaccuracies which it has been impossible to overcome.

"I approached this subject along the line that gears may be heat-treated and case-hardened and allowed to change in physical form to the fullest extent, but that a machine must be devised to restore them to perfect form at a commercial cost. Prior experimenters have generally tried to use a thin abrasive wheel, whose revolving perimeter would trace up and down the curve of the gear tooth. But the wear on such a wheel was marked, and it was found impossible to maintain it continuously to form. My basic idea was to use a unit area of grinding wheel to the unit area of surface to be ground and to maintain this unit area of grinding wheel to the constant form desired by means of some trimming device. A first experimental machine was completed in 1907. From then until the latter part of 1909 the machine was in process of development. During the early part of this year we proceeded to grind rough-cut hardened gears with such a degree of accuracy that in measuring a group of teeth the variation from theoretically absolute accuracy has been less than .001 inch or less than .0002 inch per tooth. The machine has also obtained such speed in operation as to make it a commercial success.

"The present Type A Grinders are designed to handle a line of gear work from the smallest up to and including 12 pitch diameter, as heavy as 4 pitch and with a face dimension up to 4 inches. The gear, rough-cut or as the case may be, with stock allowed for finishing in the grinder, is mounted upon an arbor in a manner similar to that employed in gear-cutting. By means of a number of well-known mechanical movements the grinding wheel revolving at a proper rate of speed, is brought forward and passes with a shaperlike movement between the gear teeth. This grinding wheel is of a grade suitable for grinding the material of which the gear is made, and is kept continuously to the required form by means of an automatic forming device.

"In order to grind gears successfully the indexing device is of the utmost importance, as the extreme of accuracy is required. A newly developed indexing device has eliminated the common trouble arising from friction driven indexing devices and is now used upon the machines. For obtaining the required number of divisons the common method of change-gears is employed.

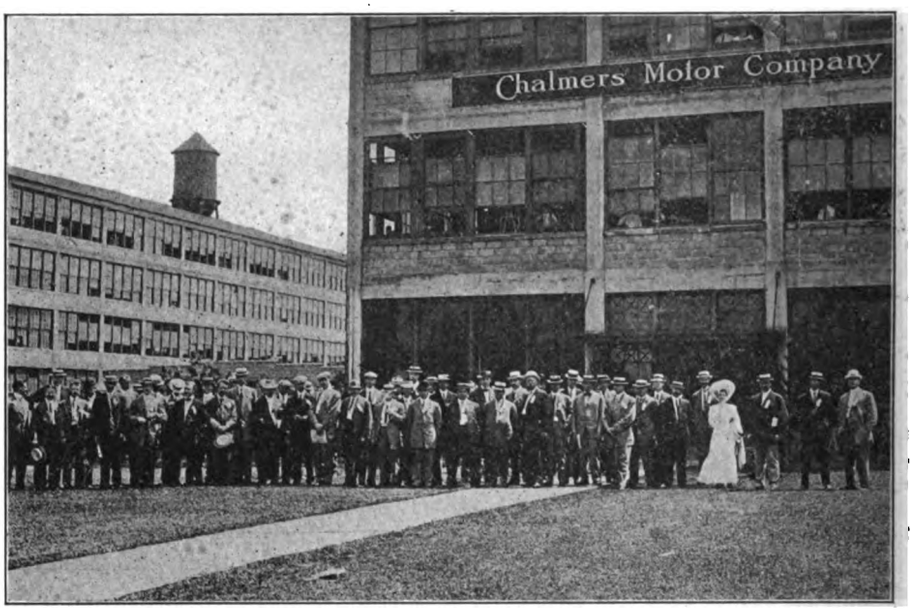
"The forming device is a simple combination of mechanical movements. Any standard form of spur gear teeth and many so-called freak forms are easily developed upon the sides of the grinding wheel and rapidly reproduced upon the gear.

"Within this device is a master form, which is mathematically calculated and laid out in advance, and by means of the mechanical movements regulates and controls absolutely the curve through which the trimmer diamonds pass. To change the form upon the periphery of the wheel for grinding different types and forms of teeth, the operator simply replaces the controlling form in use with the one desired and retrims the grinding wheel, operations which require but a few minutes.

"The use of these machines for the production of gears for automobile work has been an afterthought. The making of gears for the industrial field from materials which have hitherto been commercially impracticable on account of many difficulties, has been one of the influences in the development of these machines. There are materials which can be cast roughly to form gears, which, after being finished by the grinding process outlined, will show easily from five to seven times the life of the ordinary forged and heat-treated gear. The only method by which it has peviously been possible to finish the teeth of such cast gears is by hand through the use of emery.

"No comment need be made as to the long step forward which this gear grinding machine shows in the art. Plans are now being brought forward whereby in the near future we will accurately grind gears having diameters up to 42 inches for electric-traction, crane and other purposes. We

(Continued on page 296a.)




ENGINEERS VISITING THE CHALMERS PLANT

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## MISSING CHAUFFEURS A MYSTERY

### Puzzle Koenig as to Why they Do Not Take Examinations—Badges and Plates Cause Criticism.

"Lost—Fifteen or twenty thousand chauffeurs. Suitable reward will be paid for their return. Address Sam Koenig, Albany, N. Y."

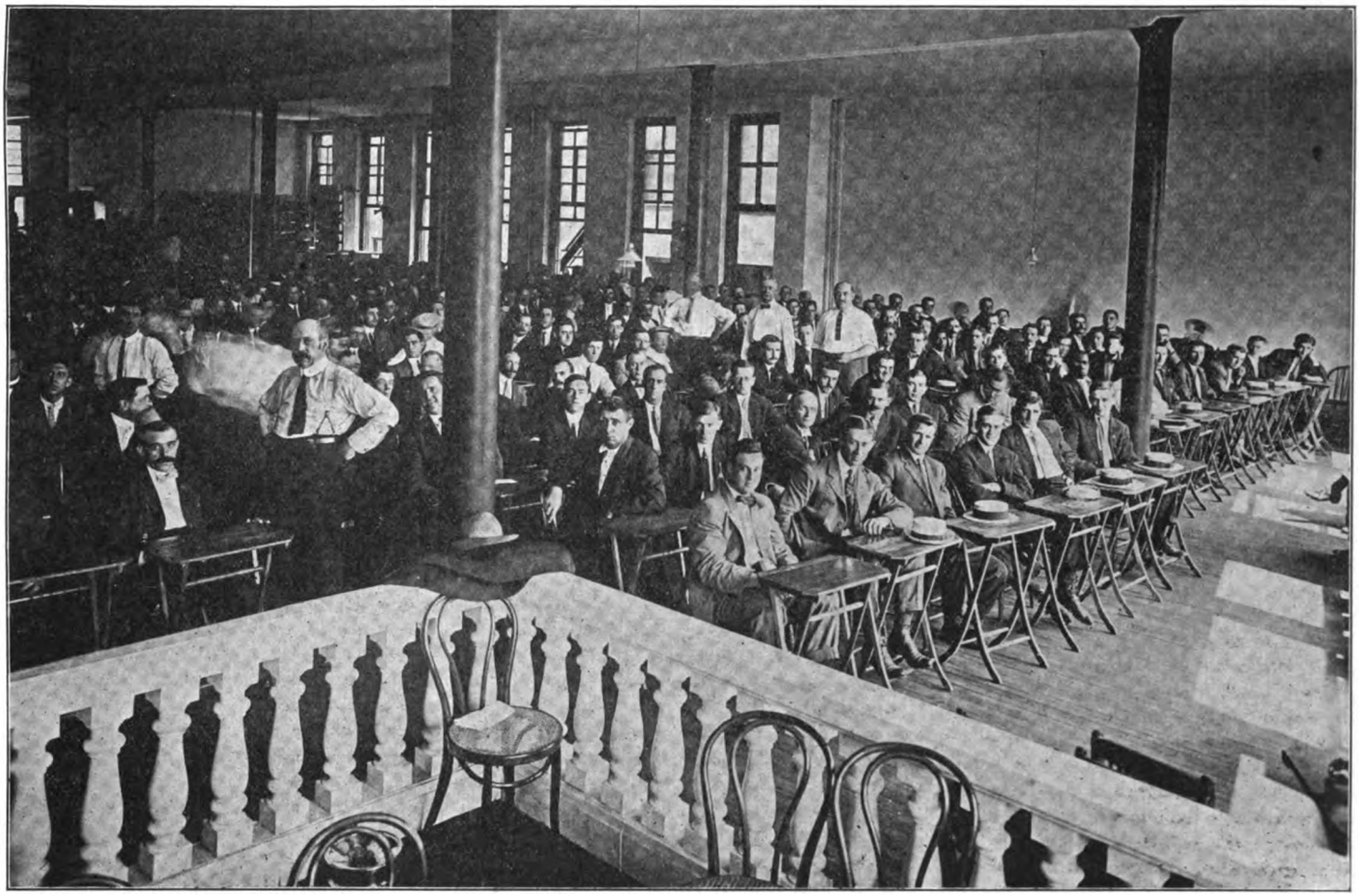
If such an advertisement should appear in the New York dailies it would cause no great surprise; for it may serve to solve the mystery of the disappearance of this small army of automobile drivers or would-be drivers. Since the Callan bill was passed it had been estimated that there were about 30,000 professional chauffeurs in the metropolitan district. Now that the new law has been in effect, on paper at least, for three full days, something or other seems to have miscarried, for there have been but 11,000 applications for examination. The authorities are puzzled; they can't understand it. Where are all the others? Someone in Mr. Koenig's Bureau of Registration guessed that they were at summer resorts with their employers, or touring Europe, or —"somewhere."

Very many of the chauffeurs who submitted to the examination have not yet received their badges. Secretary of State Koenig's bureau having been unequal to its task, perforce has had to supply many drivers with "letters of identification," which may serve to keep them out of jail in the event of arrest. Few if any of the chauffeurs who have received their badges are proud to wear them; and not without reason.

The badges are about the cheapest looking things ever manufactured for such a purpose. They break easily, and it costs the unlucky owner a dollar to have one of them duplicated, when its real value is nearer five cents than one dollar. The badges, however, are about as good as the number plates for the cars themselves. Of course, nobody expects artistic work on a number plate. What an owner has a right to expect, however, is to find the plate manufactured in such a way as to assure its lasting through the year, provided reasonable care is used. From the experience of some of the owners who have received the new plates it appears that not only are the white enameled numbers furnished with edges chipped off and cracked enamel, but the fastenings are so insecure that one of the cars belonging to a public service company lost one of the figures of its plate, after bumping into a particularly large hole in the asphalt pavement on Eighth avenue. The "rivets" simply "lost their heads" and the enameled figure dropped to the ground. On some of the plates the figures are made worse by not being placed evenly on a line.

And thus it has come to pass that Secretary Koenig, in a fatherly endeavor to welcome the "lost, strayed or stolen" twenty thousand, when they decide to apply for their certificates, has gone beyond the statutes and graciously extended the time limit of the new law and granted them 15 days additional, in which to see the error of their ways, and in which to show the examiners at Broadway and 74th street how well they know the ins and outs of automobile driving and the inwards of automobile mechanism. This latter is a sore point in some quarters.

"We have lost two of our best drivers," said the head of a firm employing a number of commercial vehicles in expressing his feelings on the subject, "and solely because they could not answer some of the questions relating to the machinery of the cars. We did not employ them for their knowledge in that respect, but because they were cool, reliable fellows, who knew how to drive. We keep our machinists in our repair shops. I can't see why it is any more necessary for a chauffeur to be a mechanical sharp than it is for a horse driver to be a veterinary surgeon."



NEW YORK STATE CHAUFFEUR'S KINDERGARTEN IN SESSION

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## BUSES TANGLE SECRETARY KOENIG

### Mandamus to Make Him Recognize Fifth Avenue Coaches as "Commercial Vehicles"—Saving Registration Fees.

If Mr. Callan, framer of the New York state automobile law, and his various assistants had thought of the terms "passenger car" and "freight car," which now are being discussed in connection with their proposed general adoption by the automobile trade, Secretary of State Koenig would not have been made the object of a writ of mandamus served upon him by the Fifth Avenue Coach Co., which operates the buses on Fifth avenue and Riverside drive.

The Callan law distinguishes between pleasure vehicles and commercial vehicles, but fails to define the latter. It is the contention of the Fifth Avenue Coach Co. that while their buses are passenger vehicles, they also are commercial cars, in the sense of being operated for a profit, and being free to any man on the street for a fare of ten cents. Secretary Koenig, however, holds that the Callan law makes no distinctions of that kind, and that in his opinion a commercial automobile is one used by merchants, manufacturers or the like for the transportation of goods and merchandise and not passengers. Until courts settle this question, the secretary claims that the interests of the state demand that he decide doubtful claims in favor of the state.

When Richard W. Meade, president of the New York Transportation Co., which is the owner of a majority of the stock of the Fifth Avenue Coach Co., was seen by a Motor World representative, he stated that the writ of mandamus had been applied for in order to have the status of the commercial vehicle judicially defined.

"The application for the writ," said Mr. Meade, "is made in a perfectly friendly way, and Secretary Koenig is heartily in favor of our effort to obtain a judicial decision which once and for all will define exactly what a commercial vehicle is and what it is not. The Fifth Avenue Coach Co. at present has 60 buses in service, and is about to install 25 more, so that the difference in the annual registration fee would amount to $850. When the question of registration under the Callan law first came up, I submitted to Mr. Koenig various current issues of trade papers dealing exclusively with commercial cars, and in each of these considerable space was devoted to the operation of buses, taxicabs, etc., showing conclusively that in the opinion of the automobile trade a motor bus is considered a commercial vehicle. Mr. Koenig could not see it that way, and held that in the opinion of the general public and in that of the makers of the law a commercial car is one carrying merchandise, not passengers. The Fifth Avenue Coach Co. therefore has registered one of its buses as a commercial vehicle, and when this car was protested under the regulations of the Callan law, applied for a writ of mandamus, requiring Secretary Koenig to show cause why this particular vehicle should not be permitted to run in the streets of the city under the provisions made for commercial vehicles, paying an annual license fee of $5. The remainder of the buses were registered by the company, and, under protest, the license fee applying to pleasure cars was paid—$15 for each machine. This money is being held by the secretary of state pending the outcome of the writ of mandamus."

Asked about taxicabs, Mr. Meade stated that after the bus question had been settled the taxicab problem probably would be taken up. "If it is decided by the court," he said, "that when operated by a transportation company for rent or hire, regardless of the kind of load it carries, a motor vehicle shall be classed as a commercial vehicle, it follows that a taxicab comes under that heading. In fact it seems perfectly right to class taxicabs as such, for only in rare instances do they use the state highways, most of their traffic being confined to the streets of the city in which they are located. Why a taxicab should pay a state tax for using highways when it does not use them to any great extent is a puzzle to not a few people."

### Frelinghuysen Shows His Alarm.

"Joe" Frelinghuysen, the New York insurance man, who also is a New Jersey senator, apparently has taken alarm at the unexpected effects of the "hold-up" automobile law which he fathered in the Mosquito State. Frelinghuysen now is anxious to become governor of New Jersey, and the howl that has arisen since other states began to play the "hold-up" game with New Jersey motorists as the victims, is not the sort of thing that helps the ambitions of any political candidate. The movement to quell the outcry—and probably to assist Frelinghuysen's candidacy—took the form of a semi-secret conference in Trenton last week. The candidate was present, of course; so was New Jersey's commissioner of motor vehicles and other politicians, likewise several automobilists. The object of the conference was said to be to establish more friendly relations with other states.

### Arrest Unlicensed Woman Driver.

In New Jersey not even a man's wife may drive his car, even though the latter may be but a light electric runabout, without first having obtained a driver's license. Mrs. Nellie Claypole, of Paterson, N. J., was the woman who was arrested for this heinous offence. She was found guilty of violation of the state automobile laws, but sentence was suspended.

## BRANCH MANAGERS NEED BADGES

### Elite of "Automobile Row" Legally Classed as "Chauffeurs"—Why They Cannot Escape Law's Requirements.

Hereafter it will not be safe for the blown in the bottle chauffeur who stops in the vicinity of New York's plate glass "automobile row" to saunter over to any man he sees wearing the piece of tin which passes as a chauffeur's badge and ask the old question: "Who yer drivin' fer?" The man may be the president or treasurer of the company that sells $5,000 automobiles or he may be the kid-gloved manager or head salesman in any one of a hundred gilded automobile palaces. For be it known that no longer can such men drive a car belonging to the company of which they are a part or a leading employe unless they are decorated with one of the tin badges "conspicuously displayed."

When the Callan bill first was made public, the Motor World called attention to the clause which made the conditions possible. It was and is contained in the definition of the word chauffeur, i. e., "any person driving an automobile as an employe or for hire." This clearly applies to managers and salesmen who make use of demonstrating cars and when the question was raised this week, Secretary of State Koenig not only so decided but went further and ruled that it applies also to officers of corporations in whose names the ownership of cars is vested and registered. As the law requires that cars shall be registered in the names of their owners, no car owned by a corporation may be used by any officer or employe unless he be a registered chauffeur. Failure to do so entails a $50 fine, and failure to display the badge means a fine of the same sum.

As the registration clause requires that the applicant shall make oath to ownership of the car sought to be registered, any officer or employe using a corporation's car cannot register it in his own name without making a false statement (fine $50) and without rendering himself liable to criminal prosecution for perjury.

Hence when the full meaning of the law dawns on "automobile row" and elsewhere there is likely to be something of a flutter in quite a few high dovecotes.

### Two Pope-Hartfords in the Vanderbilt.

For the first time in their history Pope-Hartford cars will be seen in the Vanderbilt Cup race this year, two nominations of this well known make having been made. The cars which will be of the 1911 model, four cylinder pattern, have been entered by H. E. Holt of New York City, and B. C. Fincke, Short Hills, N. J. It is understood the drivers will be Dingley and Clemons.

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## ALL SURVIVE CLEVELAND'S RUN

### Three Days Contest Over Northern Ohio Roads—Knudsen, Stambaugh and Rauch Get Special Honors.

Like unto a family reunion was the three days' reliability contest promoted by the Cleveland (O.) News on the 25th, 26th and 27th ult., for it brought together 32 cars of prominent makes from the new 1911 models down to the erstwhile prides of five years ago. Despite their varying ages and numerous hills and some formidable sand stretches encountered in the 500 miles' excursion through the Buckeye State, all of the 32 starters survived the three days' test, 17 of them coming through with perfect scores. Those who were penalized suffered for minor troubles. Among the perfect performers H. C. Knudsen, Overland, and John Stambaugh, Chalmers, received additional honors. Knudsen won the amateur prize, a Goodyear air bottle, and Stambaugh, in recognition of his exceptional work, was presented with a Jones Live Map. Although slightly penalized for carburetter trouble the Hupmobile driven by John Rauch was awarded the cup for cars costing less than $800.

The start was made from the Hollenden Hotel at 6 o'clock Monday morning, 25th ult. Heavy rain the previous night had laid the dust, and the roads on the first day were excellent. Lunch was taken at Wooster and the afternoon run was to Columbus, where the night was spent. Although Columbus was on the eve of a hot political convention when the visitors arrived they speedily shared honors with politics as topics of interest.

Tuesday's run to Toledo was marked by a continuous string of tire trouble which was charged to the excessive heat expanding the air in the tires, but the nearest approach to mishap was when a wheel of T. E. McCoy's Brush was put out of commission by an accident on a bad stretch of road. A local Brush owner came alongside, however, and perceiving the situation removed a wheel from his car and insisted that McCoy take it and continue.

Rain fell again on Tuesday night, and while it laid the dust on the good stretches of Wednesday's final leg it also rendered the poor stretches very ticklish to negotiate. Between Elyria and Norwalk the holes and ruts were filled with water which obscured many a bump that was not discovered until the cars hit them and deluged the occupants with muddy water. To make things more disagreeable, the tourists were caught in a heavy rain near Rocky River, but it did not cause any desertions from the ranks. Cleveland, the final control, was reached at 5:30 Wednesday afternoon.

Those who received perfect scores were as follows: J. C. Winters, Oldsmobile; Ira Fouche, Studebaker; Hugh Miller, Palmer-Singer; Frank Grace, E-M-F; J. C. Hipp, Regal; A. L. Soper, Gabriel; Harry McIntosh, Firestone-Columbus; J. C. Koepke, Cutting; Frank Santry, Maxwell; C. G. Bleasdale, Columbia; Otto Lindner, Gaeth; F. Munroe, Owen; Ralph Kinney, Garford; Fred Krum, Oakland; H. C. Knudsen, Overland; John Stambaugh, Chalmers, and William McCalla, Hudson.

The other survivors were Frank Pierce, Buick; Jack Sperry, Henry; O. Alexander, Hinescar; Harry Kortz, Atlas; C. W. White, Pierce-Racine; J. M. Rauch, Hupmobile; T. E. McCoy, Brush; Harry Gabriel, Krit; D. E. Foote, National, H. W. Orndorfer, DeTamble; Thomas Swan; Packard; F. J. Moore, Hinescar; H. B. Olds, Norwalk; H. S. Moore, Stoddard-Dayton.

### Clark Wins St. Paul Endurance Run.

When the officials completed the technical examination and cast up the results of the performances of the 16 cars which competed in the five days' reliability run of the Minnesota State Automobile Association for the St. Paul "Dispatch," Warner and Gregg trophies, on the 22d to 27th ult., A. A. Clark, of St. Paul, driving a Franklin, evolved the winner. He made a perfect road score, but lost 3 points on the technical grill, giving a final percentage of 997. Four others—O. C. Phillips, Pierce-Arrow; O. E. Martin, Hudson; G. L. Gilbert, Chalmers; and Arthur Laroche, Regal—also performed perfectly on the road but received larger assessments from the technical committee.

C. A. Lewis, Reo, made the second best showing, gaining a percentage of 989, and A. A. Hanson, Ford, came next with 979. The "Dispatch" trophy, which is a perpetual prize, will be held by the St. Paul Automobile Club for the coming year, while the Warner trophy becomes the permanent property of A. W. Kent, owner of the winning car. Clark receives a gold medal for his work. On account of a delicate question involving the relation of price to percentage arising in regard to the scores of the Ford and Reo, the A. A. A. will be asked to decide which is entitled to the Gregg trophy.

The results in detail:

| Drivers and Cars. | Penalizations Rd. | Tech. | % |
|---|---|---|---|
| A. A. Clark, Franklin | 0 | 3 | 997 |
| C. A. Lewis, Reo | 6 | 5 | 989 |
| A. A. Hanson, Ford | 1 | 20 | 979 |
| O. C. Phillips, Pierce-Arrow | 0 | 45 | 962 |
| Rudd Stensvad, Cadillac | 21½ | 21 | 957½ |
| A. P. Heaney, Halladay | 27 | 16 | 957 |
| W. A. Alden, Cole | 24 | 29 | 947 |
| G. L. Gilbert, Chalmers | 0 | 57 | 943 |
| O. E. Martin, Hudson | 0 | 64 | 936 |
| C. W. Schanno, Halladay | 4 | 97 | 899 |
| F. E. Hypins, Cartercar | 46 | 57 | 897 |
| E. B. Stimson, Hupmobile | 45 | 59 | 896 |
| Frank Siefert, Cole | 32 | 34 | 884 |
| W. J. Ranger, Auburn | 5 | 144 | 871 |
| Arthur Laroche, Regal | 0 | 296 | 704 |

Troy Duis, Staver—Incomplete.

## COLUMBUS HAS A TWO DAYS MEET

### Oldfield Breaks "Dirt Track Records"—Frayer Captures Hard 100 Miles Grind for the Hoster Trophy.

What they styled "state dirt track records" were shattered at the two days' race meet at the Driving Park track, Columbus, O., in Friday and Saturday, 29th and 30th ult., and of course the Oldfield-Kirschner combination played the part of shatterers. The figures which were erased from the Pickens slate were for one and three miles. Oldfield, on Friday, reeled off a mile in 53 seconds, and Kirschner melted off three circuits in 2:33⅘, both said to be new state records. On Saturday, Barney hammered his mile figures of the previous day down to 50⅗ seconds, and Kirschner also further compressed the three miles mark by two-fifths of a second.

It was Lee Frayer, however, who on a Firestone-Columbus annexed the blue ribbon of the card, the 100 miles grind for the Hoster trophy, on Saturday. Getting away to a very ordinary start, Frayer trailed steadily behind while Oldfield with the Knox headed the van and unwound so fast that he soon had the rest of the half dozen starters well strung out trying to hold on. The first to quit was Emmons, Herreshoff, who retired in the 36th mile, and he was followed a few minutes later by Rickenbacher, Firestone, who had engine trouble. Oldfield still in front, and having lapped all the others, made a non-stop run until the 76th mile, when he had to draw up for spark plug troubles. Then Frayer, who had crept up almost unnoticed, closed the gap between himself and first, and drew a lead which Oldfield was unable to close. The time, 1:49.52. Elliott, in another Firestone, displayed a perseverance which lasted to the finish and gained him third.

Bringing out a field of nine cars, the five miles handicap on Friday proved the banner event of the day. Rickenbacher, Firestone, had the limit, 53 seconds, and led Oldfield a merry chase. The latter passed all the others, but could not pull down the lone runaway, who won out, Oldfield bringing the Knox in second. Time, 5:01⅘. Elliott, Firestone, livened things up a bit in this event by going through the fence on a turn, but escaped without a scratch.

In the 25 miles handicap on Friday, Oldfield allowed Frayer to lead for 11 miles, when he gave the Knox its head and left Frayer in the dust, winning by half a mile. The attendance was good, 2,000 on Friday and 3,000 on Saturday. The summaries:

First Day—Friday, 29th.

Five miles, 161-230 class—Won by Rickenbacher, Firestone-Columbus; second, Walter Emmons, Herreshoff. Time, 5:34⅘.

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Five miles, 231-300 class—Won by Hugh Hughes, Parry; second, Elliott, Firestone-Columbus. Time, 5:31⅗.

Five miles, Columbus championship—Won by Herbert Campbell, Parry. Time, 5:34⅘.

Five miles, 301-450 class—Won by Fritz, Buick; second, Hugh Hughes, Parry. Time, 5:07⅘.

Five miles handicap, free-for-all—Won by Rickenbacher, Firestone-Columbus; second, Barney Oldfield, Knox. Time, 5:01⅘.

One mile against time, Oldfield, Benz—Time, 0:53.

Three miles against time, Ben Kirscher, Darracq—Time, 2:35⅘.

Second Day—Saturday, 30th.

Five miles, 161-230 class—Won by Rickenbacher, Firestone-Columbus; second Walter Emmons, Herreshoff. Time, 5:21.

Five miles, 231-300 class—Won by Hugh Hughes, Parry; second, Elliott, Firestone-Columbus. Time, 5:26⅗.

Five miles handicap, free-for-all—Won by Rickenbacher, Firestone-Columbus; second, Hugh Hughes, Parry; third, Elliott, Firestone-Columbus. Time, 5:16⅘.

Three miles against time, Ben Kirscher, Darracq—Time, 2:33⅗ (record).

Five miles, 301-450 class—Won by Fritz, Buick; second, Hugh Hughes, Parry. Time, 5:14¾.

One mile against time, Oldfield, Benz—Time, 0:50⅗.

One hundred miles for Hoster-Columbus trophy—Won by Lee Frayer, Firestone-Columbus; second, Oldfield, Knox. Time, 1:49.52.

### Lively Hill Climb at San Antonio.

Bounding up the crooked quarter mile grade with a reckless abandon which easily persuaded the spectators to give him plenty of elbow room, Tobin DeHymel, driving a big Stoddard-Dayton car, was the star at the San Antonio (Tex.) Automobile Club's hill climb at New Braunfels, Sunday, 24th ult., and twice "brought home the bacon," or rather cups.

After corraling the opening number, a class event, in a canter, DeHymel lay low until the red letter class, the free-for-all, was called. Splitting the air with a roar which drowned all other sounds, the big Stoddard swept up the hill in a manner which left no doubt as to the result, and registered at the finish in 27¼ seconds, the fastest of the day. M. A. Holmes, in a Jackson, came nearest to the winner, with a flight in 34 seconds, beating Phil Wells, the "Man in the Moon," by 2 seconds. Wells also climbed among the laurel wearers by topping the 231-300 class. He made the climb in 36 seconds, beating Salley, in the Kisselkar by 6 seconds. The event for cars in the 301-450 classification was won by Leo DeHymel, who piloted a Velie to the summit in 32 seconds. Holmes, in the Jackson, was second.

## SQUABBLE AT SALT LAKE CLIMB

### One of the Judges Accuses a Driver of "Pulling"—Vanderbilt Car Gives an Exhibition.

Tactics well known in horse racing but quite unusal in automobile contests, which apparently were introduced to bring about certain results in the hill climb promoted by the Salt Lake (Utah) "Telegram" on the Brigham street hill on Saturday, 30th ult., caused quite a rumpus, and also resulted in a protest being filed against Frank Siefert, who won the free-for-all class with a Stoddard-Dayton, in which he drove an Apperson also. He was accused by Samuel Newhouse, one of the judges, of "pulling" or holding back the Apperson, which previously had made faster time than the Stoddard, in order to let the latter win.

In one of the previous classes for cars costing $4,000 and under, Siefert drove the Apperson up the hill in 1:05 and won the event, yet in the free-for-all, in which he had two mounts, the Apperson required 1:12⅗, a falling off of more than 7 secons, while the Stoddard-Dayton swept to the summit in 1:07⅗. The protest will be referred to the A. A. A. contest board for decision. Richardson, in a Palmer-Singer, was second in the big class making the trip in 1:11⅗. He also tied for first honors in the class for cars costing $1,601-$2,000, in a Velie, registering at the finish in 1:25, which Carl Winter, Buick, duplicated.

Siefert and the Stoddard were the stars of the day, winning, in addition to other honors, the $2,001-$3,000 class in 1:11⅗, and running second in the $1,201-$1,600 division. His time in the $4,000 and under class was the best of the day in the regular events, although W. F. Dodd, in a Thomas Vanderbilt Cup car, made an exhibition climb in 0:56⅗. The course was a mile in length, beginning at Eleventh East street and finishing at the Fort Douglas military reservation. The summaries:

$800 and Under.

| Driver and Car. | Time. |
|---|---|
| A. F. Savage, Hupmobile | 2:25⅘ |
| F. Nevin, Flanders | 2:56 |

$800 to $1,200.

| | |
|---|---|
| H. Kessler, Ford | 1:48⅗ |
| Monte Young, Buick | 1:51 |
| Bert Angell, Buick | 2:00⅗ |
| J. Lawrence, Overland | 2:25⅕ |

$1,201 to $1,600.

| | |
|---|---|
| W. F. Dodd, Buick | 1:31⅗ |
| Frank Siefert, Stoddard | 1:45⅗ |
| Frank Gravin, E-M-F | 1:46 |
| R. Richardson, Overland | 1:47⅕ |
| H. E. Elliott, Cadillac | 2:03⅗ |

$1,601 to $2,000.

| | |
|---|---|
| D. Richardson, Velie | 1:25 |
| Carl Winter, Buick | 1:25 |
| Frank Siefert, Stoddard | 1:28⅗ |
| W. F. Dodd, Buick | 1:34⅕ |
| Bert Angell, Oakland | 1:44 |

$2,001 to $3,000.

| | |
|---|---|
| Frank Siefert, Stoddard | 1:11⅗ |
| W. F. Dodd, Buick | 1:17⅕ |
| Carl Horst, Winton | 1:17⅗ |
| H. Bracken, Premier | 1:18⅘ |
| Carl Winter, Buick | 1:26 |

$4,000 and Under.

| | |
|---|---|
| Frank Siefert, Apperson | 1:05 |
| Frank Siefert, Stoddard | 1:08 |
| E. McLaughlin, Palmer-Singer | 1:13⅗ |
| Monte Young, Thomas | 1:16 |
| W. F. Dodd, Buick | 1:16⅗ |
| H. Bracken, Premier | 1:16⅘ |
| L. J. Gilmer, American | 1:30⅘ |
| S. D. Reed, Studebaker | 1:36⅘ |

Free-for-All.

| | |
|---|---|
| Frank Siefert, Stoddard | 1:08⅗ |
| D. Richardson, Palmer-Singer | 1:11⅗ |
| Frank Siefert, Apperson Jack | 1:12⅗ |
| H. Bracken, Premier | 1:15⅕ |
| W. F. Dodd, Buick | 1:15⅗ |
| F. M. Downs, Thomas Flyer | 1:16 |
| Bert Smalling, Packard | 1:17⅗ |
| D. Reimer, Velie | 1:21⅕ |
| L. J. Gilmer, American | 1:22⅗ |
| S. D. Reid, Studebaker | 1:32⅕ |

Delivery Wagons.

| | |
|---|---|
| C. H. White, Buick | 2:29⅗ |
| W. W. Calder, Overland | 2:38⅘ |

### May Make Sheepshead a Motordrome.

Horse racing without betting being somewhat akin to coffee without cream, owners of horse racing plants in New York state are trying to find new uses for their properties, when the anti-betting law goes into effect September 1. With the present popularity of automobile track racing throughout the country, it is not unlikely that some of the horse tracks will be converted into motor racing plants to bring revenue to their owners. One of the turf organizations, the Coney Island Jockey Club, is said to be contemplating the making over of its establishment at Sheepshead Bay into a motordrome when the death knell of betting is sounded. If such a decision is carried out, the Motor Racing Association, which conducts the Brighton Beach meets, will have a serious rival, for the two tracks are close together.

### Sea Cliff Ferry for the Vanderbilt.

For the benefit of New England motorists who plan to attend the Vanderbilt and Grand Prize races on Long Island, the Motor Cups Holding Co. has arranged to have the ferry service across the Sound between Rye and Sea Cliff continued until October 16th, one month later than usual. This arrangement will save motorists from the East a trip of 60 miles, and will obviate their entering the traffic maze of New York City. On September 30th, the night before the Vanderbilt, and again on October 14th, the eve of the Grand Prize race, the ferry will run all night, leaving Rye on the even hour and Sea Cliff on odd hours. This service will be continued for 12 hours before and after the races, and ample boats will be provided to take care of the traffic.

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## CHICAGO THIRTEEN PROVES LUCKY

### Athletic Association Team Defeats Automobile Club Eleven in Annual Contest —Two Days Run.

Contradicting the time honored superstition concerning the misfortune which is said to attach to the number thirteen, that cabalistic combination retrieved its unsavory reputation last week when the Chicago Athletic Association team of thirteen members defeated its motoring rival, the Chicago Automobile Club team of eleven men, in the annual interclub challenge contest on Thursday and Friday, 28th and 29th ult., by the comfortable margin of 21.7 points. The contest, the third for the trophy, was held over a 275 miles course between Chicago and St. Joseph, Mich., the latter being the night stop on the first day. The winning team was penalized a total of 55.3 points, while the losers ran up fines which amounted to 77 points. At the finish both teams sat down to a banquet at the expense of the losers.

While the contest generally is regarded as a fine example of amateur competition, this is not wholly true, for several members of the automobile club team are actively identified with the trade. Whatever hopes the C. A. C. men may have had of retaining possession of the trophy, for another year were dashed to earth on the first day, when through a run of hard luck the team drew fines to the extent of 50 points as against the modest 9.81 penalties incurred by their rivals. However, the tables came near being turned on the second leg when the C. A. A. outfit struck some snags which cost them 45½ points, but as the automobile team also were docked 27 points that day the Cherry Circle contingent carried off the honors. Eight members of the winning team made perfect scores, while in the ranks of the automobile club team only three finished perfect.

The results in detail:

Chicago Athletic Association.

| | |
|---|---|
| C. T. Kniseley, Palmer-Singer | 5.06 |
| S. W. Hamm, Locomobile | 0 |
| A. H. Coon, Stoddard-Dayton | 0 |
| W. F. Grower, Diamond T | 0 |
| C. C. Ireland, Stoddard-Dayton | 0 |
| W. H. Chamberlain, Rambler | 44 |
| R. B. Wilson, Franklin | 3 |
| H. H. Latham, Rambler | 1.65 |
| C. A. Briggs, Chalmers | 0 |
| W. C. Thorne, Palmer-Singer | 1.5 |
| F. W. Wentworth, Rambler | 0 |
| H. P. Jackson, Locomobile | 0 |
| L. T. Jacques, Peerless | 0 |
| Total | 55.31 |

Chicago Automobile Club.

| | |
|---|---|
| N. H. Van Sicklen, Apperson | 10 |
| Charles Bosch, Stearns | 1 |
| W. C. Atwell, Stoddard-Dayton | 7 |
| Carroll Shaffer, Stevens-Duryea | 0 |
| E. T. Franklin, Moon | 17 |
| N. H. Van Sicklen, Jr., Apperson | 0 |
| R. O. Evans, Apperson | 2 |
| P. J. McKenna, Pierce-Arrow | 0 |
| F. X. Mudd, Ford | 0 |
| J. T. Brown, Velie | 2 |
| L. E. Myers, Apperson | 38 |
| Total | 77 |

### Imposing Trophy for Elgin Road Race.

Official sanction having been given by the A. A. A. for the Chicago Motor Club's national stock chassis events at Elgin, Ill., on August 26th and 27th, the club has designed a notable addition to the ever-growing list of imposing trophies for which automobilists may compete. It is to be known as the Elgin National Trophy, and is to be the prize in the big race on the second day, the event for cars under 600 cubic inches piston displacement. As indicated by the accompanying reproduction of the design it is a two handled cup, having laurel oak and water leaves for the main decorations. The trophy, which will stand 3 feet 8 inches above the pedestal and which will have a value of $4,500, is designed to take six wreaths with inscriptions.



THE ELGIN NATIONAL TROPHY

### "Dental Parlor" Limousine Appears.

Carrying out the old custom of the traveling dentist in a modernized, up-to-the-hour way, one of the expert tooth pullers in Alsace-Lorraine, who grew tired waiting in his office for patients who would not come, ordered a large limousine car and had it fitted up as a complete dental office. He is now leisurely making a tour of the entire country with great business success.

## "NATIVE SONS" STAR AT ATLANTA

### Postponed Speedway Meet Brings Out Home Talent—Stoddard and Church Each Take Three Events.

Local drivers had everything to themselves at the meeting on the Atlanta (Ga.) speedway on the 30th ult., which was postponed from the previous Saturday on account of rain, none of the national cracks being present. While in several instances walkovers occurred, some of the events were chock full of action and were well worth going to see. Bill Stoddard and E. V. Church registered oftenest in the winning column, each capturing three firsts. A crowd of 3,000 attended the meet, the program consisting of 11 numbers.

Stoddard, who had quite a few close shaves during the afternoon, took the speed honors with a Fiat, negotiating two miles in 1:34⅕. Church in a Simplex was close behind with 1:37⅗. With a big National, Stoddard raked in the 10 miles match in decisive fashion, beating Woodside, Renault, by nearly a mile. Time, 8:39. As he pulled up Stoddard's front wheels were wobbling badly, the roller bearings being ground up. Despite a flat rear tire, he again got away with the goods in the 10 miles free-for-all, piloting a Fiat home first in 8:03⅗. Church in the Simplex was runner-up. The final, and what narrowly missed being the most serious of Stoddard's mishaps, occurred in another 10 miles free-for-all. While leading by a good margin the steering rod of the Fiat snapped and the front wheels swung around independent of each other. Stoddard shut down and managed to coast to a stop without bumping into anything or anybody. With Stoddard out, Church and the Simplex breezed away from the field, and after lapping Toole, in the S. P. O., finished over a mile ahead of Woodside, Renault. Time, 8:16⅗.

One of the best races of the day was the eight miles event for cars in the 161-230 division. Pulling away from the rest of the field in the second mile, McKinstry, E-M-F, and Cohen, Firestone-Columbus, had a merry little nip and tuck seance which sent the spectators into raptures. After seesawing all the way, they finished less than a foot apart, McKinstry being first over the tape. Time, 8:35. Church, with a Pope-Hartford, won the 231-300 class at 12 miles in 11:53⅘, and repeated in the 12 miles combination for 160 and under and 161-230 classes. He made the fastest time in both divisions, 12:33⅕.

Less than two hours before the meet began a fatal accident occurred, which cost the life of T. B. Dial. Dial, a well known local driver, was practicing in a Marion, in a light rain, and while moving at good

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speed the car skidded, crashed through the fence and turned turtle, rolling down the inner embankment and pinning Dial beneath it. His head was horribly crushed and his body mangled, and he died in 10 minutes. The summaries:

Two miles time trials, free-for-all—W. J. Stoddard, Fiat, 1:34⅕; E. V. Church, Simplex, 1:37⅗; Ernest Smith, Buick, 1:55⅘; A. F. Lemon, Cadillac, 2:07⅗.

Six miles, 160 cubic inches and under—Won by W. A. DeWitt, Flanders; second, J. Atkins, Benz. Time, 6:38⅗.

Ten miles match, W. J. Stoddard, National, vs. John Woodside, Renault—Won by Stoddard. Time, 8:39.

Twelve miles, 231-300 cubic inches—Won by E. V. Church, Pope-Hartford; second, James Roach, Maxwell. Time, 11:53⅘.

Eight miles combination, two classes, for cars under 160 cubic inches, and cars between 161-230 cubic inches—160 class won by W. A. DeWitt, Flanders; second, H. H. Hall, Hupmobile; third, Jack Taylor, Fiat. Time, 9:20. 161-230 class won by K. T. McKinstry, Firestone-Columbus; second, Harry Cohen, E-M-F; third, M. Rambo, Maxwell. Time, 8:35.

Ten miles, free-for-all—Won by W. J. Stoddard, Fiat; second, E. V. Church, Simplex; third, John Woodside, Renault. Time, 8:03⅗.

Australian pursuit—Won by John Woodside, Renault; second, John Toole, S. P. O. Distance, 12 miles. Time, 11:11.

Eight miles, 161-230 cubic inches—Won by Harry Cohen, E-M-F; second, K. T. McKinstry, Firestone-Columbus; third, M. Rambo, Oakland. Time, 7:34⅗.

Ten miles, free-for-all—Won by E. V. Church, Simplex; second, John Woodside, Renault; third, John Toole, S. P. O. Time, 8:16⅗.

Twelve miles combination, two classes, 231-300 cubic inches, and 301-450 cubic inches—Both classes won by E. V. Church, Pope-Hartford; second, John Toole, S. P. O. Time, 12:33⅘.

Ten miles handicap—Won by K. T. McKinstry, Firestone-Columbus; second, M. Rambo, Maxwell; third, John Woodside, Renault. Time, 11:00.

### "Mysterious Tour" for Premierites.

Inaugurating a new form of the time honored guessability contest, Premier owners of Indianapolis, Ind., will on Sunday, 7th inst., participate in what is styled "The Mysterious Tour." Assembling at a designated rendezvous, the motorists before starting will be handed cards containing a series of questions as to the probable destination of the run, the mileage, time allowance and kindred queries, answers to which they will be expected to write on the cards to the best of their ability. The information requested will be known only to two persons, and the directions for the run will be: "simply follow the confetti." Prizes will be awarded to those who guess nearest to the right answer.

## ONCE IS ENOUGH FOR OKLAHOMANS

### Three Days Race Meet Proves a Frost Despite Good Competition—Crowds Would Not Attend.

Three days of racing on a half mile track proved an unprofitable venture for the Oklahoma City (Okla.) Motor Club which conducted a meet at the state fair grounds on the 28th, 29th and 30th ult., and aside from the financial loss, there were so many narrow escapes from accident that sentiment is strongly against the holding of any more meetings on such small tracks. The program was an extensive one, and while practically all the drivers were local men they furnished some good sport, but for some reason the meet did not attract the public. Honors were pretty well distributed among the contestants, with Potter, E-M-F, and Twohig, Ford, as the most consistent repeaters in the winning column. While there were several close calls the only accident occurred on the 30th, when Turkenkoff, in an Overland, crushed in the inner rail when a tire burst and suffered serious injury. The summary:

First Day—Thursday, 28th.

Five miles exhibition, Leigh Lynch, Jackson. Time, 7:10.

Five miles, Times trophy—Won by Potter, E-M-F; second, Turkenkoff, Overland. Time, 7:36⅗.

Five miles match, Funk, Marion, vs. Beard, Auburn—Won by Funk. Time, 7:23⅕.

Two miles exhibition, Turkenkoff, Overland, vs. Baumhofer, Overland Wind Wagon—Won by Baumhofer. Time, 3:18⅕.

Five miles, 30 horsepower machines—First heat won by Harold Lee, Regal; second, Bell, Mason. Time, not given. Secon heat won by Lee; second, Potter, E-M-F. Time, 7:25⅗.

Five miles, 20 horsepower cars—Won by Jack Twohig, Ford. Time, 6:53⅗ for 4½ miles. Incorrectly taken.

Second Day—Friday, 29th.

Five miles, 30 horsepower machines—Won by Tinkler, Sellers; second, Potter, E-M-F; third, Regal. Time, 7:23.

Two miles exhibition, Baumhofer, Overland Wind Wagon—Time, 2:29⅗.

Five miles, 20 horsepower cars—Won by Jack Twohig, Ford; second, Swan, Hupmobile; third, Wallace, Hupmobile. Time, 7:40.

Five miles, free-for-all—First heat won by Potter, E-M-F. Time, not given. No others finished. Second heat won by Workman, Regal; second, Bell, Maytag; third, Allen, Maxwell. Time, not given.

One mile exhibition—Alviset, Knox, 1:22⅗.

Five miles, 40 horsepower machines—First heat won by Beard, Auburn; second, Stanfield, Jackson; third; Funk, Marion. Time, 6:59⅗. Second heat won by Lee, Regal; second, Potter, E-M-F. Time, 7:26⅗.

Final Day—Saturday, 30th.

Two miles for midget cars—Won by Tinkler, Maxwell; second, Ward, Brush. Time, 5:04.

Five miles, 30 horsepower cars—Won by Peterson, Crawford; second, Potter, E-M-F. Time, not given.

Five miles, 40 horsepower cars—Won by Stanford, Jackson; second, Beard, Auburn. Time, 6:51⅘.

Two miles exhibition, Baumhofer, Overland Wind Wagon—Time, 3:22.

Five miles free-for-all—First heat won by Lee, Regal; second, Potter, E-M-F; third, Bell, Maytag. Time, not given. Second heat won by Peterson, Crawford; second, Workman, Regal. Time, not given. Final heat won by Peterson, Crawford; second, Lee, Regal. Time, 7:02⅗.

### Jacksonville Celebrates with Races.

As befitted the occasion, motor cars played a prominent part in the opening of the new Atlantic boulevard at Jacksonville, Fla., on the 28th ult., a parade of decorated cars marking the formal dedication of the new highway in the morning, while a series of races were held on Atlantic Beach in the afternoon under the auspices of the Jacksonville Automobile Club. Local owners competed in the races, which were held over a measured mile course, and some exciting brushes occurred, although the winners registered by safe margins. The feature event was a 15 miles free-for-all, which was won by J. J. Logan, National, F. W. King, American, taking second. The meet was attended by a large crowd, over 300 machines being parked along the course. The winners received as prizes silver cups and other articles which were donated by the local tradesmen and hotels.

The summaries:

Two miles, 20 horsepower cars—Won by Roy Corbett, Buick; second, D. J. Conroy, Buick; third, H. B. Race, Ford. Time, not taken.

Two miles, 20 horsepower cars—Won by E. B. Sinkler, Hupmobile; second, Dexter Kelly, Ford; third, J. E. Johnson, Hupmobile. Time, 2:55.

Two miles, 40 horsepower cars—Won by W. M. Stinson, Oldsmobile; second, F. C. Miller, Premier; third, G. F. Parsons, Pratt-Elkhart. Time, not given.

Five miles 30 horsepower cars—Won by Dexter Kelly, Cadillac; second, J. A. McRae, Jr., Oakland. Time, not given.

Fifteen miles free-for-all—Won by J. J. Logan, National; second, F W. King, American. Time, not given.

One mile, 20 horsepower cars—Won by E. B. Sinkler, Hupmobile; second, J. E. Johnson, Hupmobile; third, Dexter Kelly, Ford.

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## ENGINEERS IN SESSION.

(Continued from page 290)

hope not only to eliminate the noise of gears so used, but to materially lengthen their life."

### THE NOMENCLATURE OF PARTS.

Much has been said of standardization in connection with automobile development, and many efforts have been made to standardize certain parts and equipments which are of such general use as to require definite classification. But hitherto automobile terminology has been permitted to expand without any sort of regulation. The result is a great confusion of nouns and a disposition on the part of several of the more able manufacturers to establish their own glossaries on an independent basis of their own choosing. In an effort to remedy this condition of affairs, F. E. Watts presented the subject before the society.

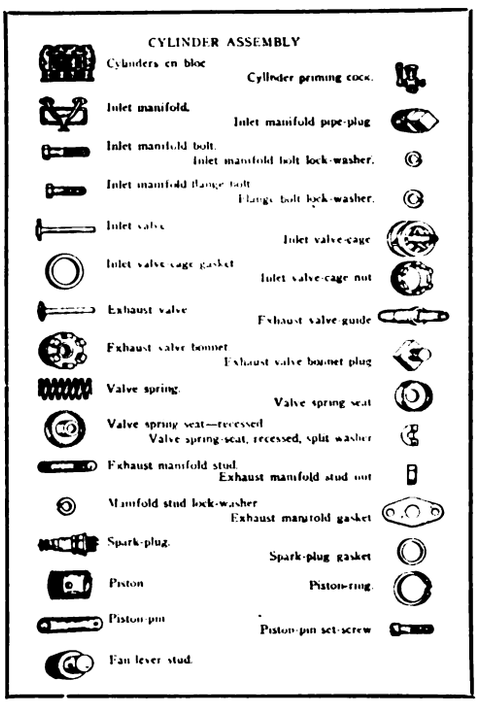
"The automobile business has grown far too rapidly for its 'dictionary' to keep pace with it," said Mr. Watts, in part. "Probably all of us who have helped in the production of detail drawings, in the making ing of parts in the factory, in sending repairs to agents or owners or in writing about any of these, have noticed the lack of uniform names for parts and operations, and have wished that we had at command words sure to be understood.

"Of course, we have a sort of glossary, but it has grown so rapidly that there are often several names for the same part. For instance, the piece which supports the front wheel is variously called 'steering pivot,' 'knuckle,' 'front wheel spindle,' etc. The rod which fastens two of these together is known as 'drag-link,' 'steering link,' 'reach-rod,' 'steering cross connection,' 'cross-rod,' 'tie-rod,' etc. Passing to the motor, we have 'wrist-pin,' 'gudgeon-pin,' and 'piston-pin,' for the same part; while the piece which connects this with the crank shaft is sometimes called the 'pitman,' though more often known as the 'connecting-rod.'

"While the alphabetical order of arrangement of parts is the most natural, there are so many pieces to an automobile that such a list is too long for handy reference, unless it is subdivided. Fortunately the manner in which the cars are assembled naturally provides such divisions, which, so far as I have observed, are used in making up parts lists in all motor car factories.

"The following headings are those taken from the price list of repair parts of the Chalmers '30' 1909 model. This parts list was selected because it is unusually complete, and also illustrated with sketches of the parts:

Accelerator Assembly.
Axle Assembly (Front).
Axle Assembly (Rear).
Propeller-Shaft Assembly.
Body Assembly.
Clutch Assembly.
Dash Miscellany.
Dust-Pan Assembly.
Equipment Miscellany.
Fan Assembly.
Frame Assembly.
Gasolene-Tank Assembly.
Gear-Shift-Guide Assembly.
Hand Lever Assembly.
Hood Miscellany.
Ignition Miscellany.
Motor Assembly (which includes)
  Camshaft Assembly.
  Carburetter Assembly.
  Connecting-rod Assembly.
  Crankcase Assembly.
  Crankshaft Assembly.
  Cylinder Assembly.
  Oil Pump Assembly.
  Timer Assembly.
  Valve Rocker-arm Assembly.
  Water-pump Assembly.
Mudguard and Running-board Assembly.
Muffler Assembly.




Muffler Cut-out Control Assembly.
Pedal-control Assembly.
Radiator Assembly.
Rock-shaft and Pull-rod Assembly.
Sight-feed Oiler Assembly.
Spark-control Assembly.
Spring Miscellany.
Starting-crank Assembly.
Steering-gear Assembly.
Steering-reach-rod Assembly.
Transmission Unit Assembly.
Transmission-brake Assembly.
Wheel Assembly (Front).
Wheel Assembly (Rear).

"The majority of these groups will be found on any gasolene car and the parts included in any of them are not too numerous to handle readily. So if we should take each of these groups and name the principal parts which compose it, the rest would follow easily enough.

"The smaller parts, which differ more in the various cars than the larger ones, can be named by a system, somewhat as follows: Where there are several parts which are very similar (perhaps performing the same functions on opposite sides of the car), they can often be distinguished by their location in the car. These locations should probably be referred to from the point of view of a person sitting in the car, facing forward. Common words of location are: Front and rear, right-hand and left-hand, upper and lower, etc. Usually the smaller parts can be named after the part or parts they are used with. This applies to shafts, bushings, washers, collars, bolts, nuts, studs, pins, pipe-plugs, oil and grease cups and similar small parts. Where several small parts somewhat alike are used with the same large piece, distinguishing prefixes can usually be readily thought of, such as: Long, short, large, small, round, square, castellated, flanged, lock, retaining, thrust, felt, rubber, etc. A standard set of such locating and distinguishing terms can probably be developed.

"The foregoing suggestions will be of little practical benefit unless some method can be found for collecting and arranging them into general use. It has been suggested that a committee be appointed to take this matter in hand, and that it should have enough members that the work can be divided, each covering some small field. The list of standard names should, of course, include at least the principal parts of all kinds of gasolene, electric and steam automobiles.

"After these shall have been compiled, and approved by the society, it is proposed that they shall be printed in the form of a pamphlet, each piece being illustrated by a sketch, so as to make identification certain. A method of arrangement of names and sketches is illustrated in the 'Cylinder Assembly List,' taken from the parts list before referred to; by courtesy of the Chalmers company.

"The repair departments of all automobile companies will appreciate this work. For with this 'dictionary' in the hands of the engineering department and in the hands of every agent, and of every motor car owner, it is clear to see that an endless amount of confusion will be avoided in the placing and filling of repair orders."

### TEST OF A FRANKLIN MOTOR.

In an introduction to the test of a 20 horsepower Franklin air-cooled engine, Prof. R. C. Carpenter explains: "In the question of design of a high-speed motor; there is no point of greater interest than that denominated 'volumetric efficiency.' This term is applied to denote percentage of the cylinder displacement which is filled with air at atmospheric pressure at the beginning of the stroke." The paper, which deals with the results of a thesis test carried out by L. R. Evans and R. P. Lay, in 1907, at Sibley College, Cornell University, carries the study of this factor to the last degree. The Franklin motor tested was run with both concentric and ordinary valves, and also with two different styles of cylinder, one having the cooling flanges

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cast integrally and the other having them made in the form of phosphor bronze rings shrunk over the plain exterior of the cylinder.

The results show that at 700 revolutions, when the cylinder was cold, about 94 per cent. of the cylinder volume was filled at the beginning of the stroke, whereas at 1,500 revolutions only about 68 per cent. was filled. When the cylinder was hot the efficiency was considerably lower. It is concluded that the cylinder probably would be completely filled when cold at about 600 revolutions, and when hot at about 400.

## BEARING DESIGN VARIATIONS.

Revealing one direction in which it may be possible to extend the principle of standardization with profit to the industry as a whole, the paper presented by D. F. Graham on the variation of current practice in anti-friction bearings is particularly noteworthy. Taking the various styles, sizes and arrangements of ball and roller bearings employed in 121 different car models, as produced by more than 50 different manufacturers, the variation in practice is shown by the arrangement of appropriate groups. In each group the number of different types of bearing used is tabulated as well as the maximum, minimum and average sizes of balls and the locations in which they are used. Concerning the subject, the author says:

"Error in motor car design has been a tendency towards bearings of special chamfer, bore or other dimensions. The writer, from his experience, believes this is one of the most subtle of errors, which at first appears an easy way out of some problem in design, but later becomes a veritable mountain of trouble, not only to the bearing manufacturer, but very much more to the user, who, when he comes to order repairs is put to great annoyance and delay. It is surprising what can be done toward reducing the number of sizes if undertaken with a will."

## METAL HARDNESS TESTS.

Discussing the question of hardness with a view to promoting standard conventions in its use, A. F. Shore, who is the inventor of the scleroscope, emphasizes the existing tendency to confusion by enumerating no less than six different varieties of that property which, in one way or another, may be considered. They are, "tensile hardness," "cutting hardness," "abrasive hardness," "elastic hardness," "shock hardness" and "static hardness." But, "according to my researches," he says, "there is but one kind of hardness which is really important, and for this final decision the American automobile engineers deserve a large share of the credit. . . . This kind of hardness is the one which may be defined as rigidity and resistance to penetration or deformation. It really does not matter whether a specimen can be filed or not, as long as hardness consistent with strength can be obtained."

In the scale of hardness standards presented by the author, the grades are all given in connection with the elastic limit which they represent. Hence, the test for hardness is applied directly in arriving at the properties of a specimen, and constitutes a valuable abridgement of the older laboratory test methods which it supplants commercially in many instances.

## FOR A PATENT APPEALS COURT.

In presenting the cause of the proposed court of patent appeals, E. J. Stoddard has found it necessary to step aside for a moment and consider the engineer's social relations. Considering this inviting topic, he suggests the point that the engineer has a duty to perform to society and that society as yet does not wholly reciprocate by affording the engineer adequate encouragement and protection in his labors and achievements. The central idea is that our present patent system, if it is to be improved, must be subjected to a slow and advised process of revision. The establishment of a court of patent appeals, he believes, is a step in the right direction.

"Our Federal judges are able and honorable men," he remarks. "Many of them are, perhaps by education, taste and character, not adapted to cope with the mixed questions of law and engineering that arise in patent cases. On the other hand, it is believed that judges can be selected, as provided in the (pending) bill, who will be able to understand and decide justly a case that is properly presented to them, understanding and actualizing the spirit of the same." But referring to the perplexity of the situation, he adds: "In patent cases the questions of fact are questions of mechanics, engineering and science, and they are so interwoven that the dividing line vanishes. The value and meaning of a decision as a precedent depends, often, upon the facts."

## OPPOSING TYPES OF VALVES.

"The imperfection of poppet valves is probably a leading reason for the revival of the growing interest in silent valve systems," says Eugene P. Batzell, in the course of his extended and very thorough examination of the subject. "Many constructions of such valves are appearing. But only few of these have been built; and still fewer have been subjected to tests." After investigating the relative advantages of numerous valve systems, he arrives at this conclusion:

"The (port) openings obtained with poppet valves are smaller and their diagrams of openings are also less favorable than with most of the other valves mentioned in this article. Poppet valves of large diameter and small lift are preferable to poppet valves with higher lift and small diameter, because with the same maximum size of opening the larger valves, depending on the cam shape, will have a better opening diagram. Rotary valves driven at constant speed all show the same character of opening diagram, and the one which, besides giving the desired size of openings, permits the simplest and most reliable construction, and is therefore to be preferred. The Knight valve must be considered superior to the poppet valve, but not superior to some rotary valve constructions."

## MOTOR TRUCKS FOR RAILWAYS.

Considering the application of motor trucks to railroad service, T. V. Buckwalter applies a triple classification, namely: Trucks utilized to replace box cars in the transfer of freight between different stations in the same city, trucks to replace horse-drawn vehicles in the transportation of both passengers and merchandise on the public highways, and trucks to replace manual labor in the handling of baggage and mail in large stations, machinery and supplies in railroad shops, and in the transfer of freight in large freight and transfer stations. The subject is considered in its broad, business aspects, as well as from the purely engineering viewpoint, and its treatment is rendered intelligent by reason of the experience of the author in the work of the Pennsylvania railroad, which is making extensive use of electric vehicles in the third order of classification.

## CARRYING THE EXTRAS.

What havoc annually is wrought in the general miscellany which the average motorist bestows about his machine under the classifications of tools and supplies is beyond calculation. But it is certain that the actual loss is considerable, while inconvenience arising from the discovery just when such utilities are in demand that they have been rendered useless through rough treatment further emphasizes the importance of giving proper thought to the manner in which they are cared for. The subject was brought to the attention of the engineers by H. H. Brown.

"One point that might easily be improved is the method of carrying lubricants," he says of one phase of the subject. "No particular place seems to have been chosen by either makers or users for carrying this reserve supply. The action of oil on rubber needs no comment. Oil cans are almost certain at some time to leak; or, if they do not, in pouring the oil to the motor or squirt-can, some of it will almost invariably slop over, and the chances are strongly against the can being wiped perfectly dry before being replaced in whatever storage place is assigned to it.

"From this point of view the tool box on the running board is not so bad a place in which to carry this oil reserve. But one does not care to get the hands more or less covered with oil, whenever a tool is required for some simple adjustment such as

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removing a spark plug. A step in the right direction was made by a well-known dealer in oils. This maker provided, free to consumers, a little bracket, complete with strap, which could be affixed to the running board. Even if the can should spring a leak, the greatest damage that could result would be a slippery running board; and a liberal dose of sand or dust would easily remedy this fault.

"However, it has seemed to the writer that the best place for carrying the supply of reserve motor lubricant is either under the motor bonnet or under the floor boards. In either of these positions it would be near the place of use, would occupy room practically available for no other purpose, and in event of leakage, could do no damage. Of course, it might in some cases be necessary for the maker to provide a can of a special form, and with suitable brackets and fastenings for holding the same securely in position."

### USE OF CORK-INSERT PULLEYS.

Cork inserts are familiar in clutch construction, but the paper presented by Lawrence Whitcomb brings out the fact of their utility in belt transmission service. No less than 20,000 cork-insert pulleys and frictions are in use in textile mills, he states, although up to this time they are used in but comparatively few automobile factories. The peculiarly elastic, resistant and durable qualities of cork, as well as its high coefficient of friction, are what impart to it its peculiar and almost surprising fitness for use as a friction material. It is employed in two ways, whether in automobile clutch service, or in the factory uses with which Mr. Whitcomb's paper deals more particularly.

In the so-called "all-cork contact," the cork alone comes in contact with the opposing surface, and so is called upon to transmit all of the power; this it continues to do for long periods of service without showing wear, by reason of the employment of large areas of contact. In the "composite construction" smaller areas of cork are used, and the material is so arranged that at low pressures only the cork contact will be in effect, but that when the pressure is increased, the cork will be compressed sufficiently to permit the surrounding wood, metal or fiber to engage. The latter arrangement is the one most familiar in automobile service.

### Red Bands as Speed Reminders.

So that passing motorists may be reminded of the existence of local speed ordinances, the practice has been adopted in England of painting a red band, 18 inches deep, on every public lamp post within restricted districts. Three different county councils have recommended the system to the minor authorities under their jurisdiction and the plan is meeting with considerable favor.

## VANCOUVER NEEDS REPAIR PARTS

### Influx of Automobiles Creates Demand for Replacements—American Consul Has a Business Suggestion.

Vancouver, the capital of British Columbia, according to the report of Consul-General Geo. N. West, is in great need of an establishment for the supply of automobile parts, the sudden demand for these being caused by the great influx of automobiles into Vancouver and the surrounding territory.

"The increased sale of American automobiles," says the consul, "has been large during the past winter and spring, and sales are still being made in large numbers, more than 250 new machines having been brought into the city up to April 15, while, from the best information obtainable, there were not more than 35 or 50 new machines brought in during all 1909. With the rapid growth of the city, covering so much territory, the distance to be traveled from one section to another being great, the business men are finding these machines almost indispensable for quick transportation, and although the roads outside the business district and inside the residential section are generally unpaved, it is found that autos are better adapted for transportation than carriages drawn by horses.

"The majority of the cars used are four passenger, although there are some five and six passengers cars in use, and from 20 to 40 horsepower, four cylinders. The lighter cars of 20 horsepower are giving good satisfaction, as they are not so hard on springs, axles, and tires on the rough roads. The price paid for cars ranges from $2,500 to $3,000. Nearly all of them are American, few European cars being used.

"It is noted that quite a number of runabouts, carrying only two persons, are seen on the streets, these cars proving handy for real estate dealers to take prospective purchasers of property to view the same, and their cost and maintenance is much less.

"Two dealers handle second-hand cars almost exclusively, as two-year-old patterns pay duty only on the actual cost price of same, but if of the 1909 pattern and bought in 1910, they must pay the same duty as a new 1910 car. Quite a number of 1907 and 1908 cars are thus brought into this place.

"The duty on automobiles imported from the United States and Germany is 35 per cent. ad valorem; on those imported from the United Kingdom, 22½ per cent.

"No establishment here carries a full supply of parts for repairs to auto cars, and owners have great delay in procuring parts that may be broken, having to send to the manufacturers therefor. Tires of various makes are more generally carried, and they are mostly of American make. The suggestion made in regard to a firm being established for carrying a general supply of parts for repairs to cars will probably be acted upon, as this office has been informed that dealers after thinking the matter over and taking into consideration the large increase in cars in use, and the prospects for the future, came to the conclusion that such an establishment had become a necessity and would prove successful.

"Taxicabs are becoming popular in Vancouver. Three of these cars were brought here last fall for hire as public vehicles, and since then the number has increased to 16, while still more have been contracted for."

### Subsidiary for U. S. M. Building.

The United States Motor Co. has formed a separate and subordinate corporation for the ownership of the big Tichenor-Grand building on 61st street, near Columbus circle, New York City, which structure when remodeled is to be known as the United States Motor building and which is to house the general offices and sales headquarters for the merger concern, although some space will be leased to outside concerns. The company in whose name the property is to be held is styled the Columbus Circle Realty Co. Stock to the extent of $225,000 is offered to United States Motor stockholders, while a 5 per cent. mortgage for $425,000 is placed on the property, the basis value of the property being placed at $650,000, which was the price paid, and which, according to the company's official statement, is $110,000 less than it cost three years ago.

### Smooth Clearance at Entrances.

It is rather important to make sure that entrance and exit doorways to garages and repair shops shall be entirely free from small obstructions, such as nails, bolts, hooks or projecting latches, which might tend to catch in the top leathers of carelessly driven cars passing through. Although the clearance may be supposed to be ample there is always the chance that a thoughtless twist of the steering wheel or the rebound of a machine driven too rapidly across the sill may cause serious defacement to the machine.

### Shifting Tires to Equalize Wear.

Motorists should not be afraid to shift their tires about from wheel to wheel. If a tire shows more wear on one side than on the other, it may be reversed; if one rear tire shows more wear than the other, they may be exchanged; partly worn rear tires may be put to good use on the front wheels. Besides effecting no small economy in tire-life, the precaution ensures the maintenance of the rims in good condition and so does away with one prevalent cause of delay in making repairs on the road.

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## ANOTHER "WAR OF THE STATES"

**Maryland's New Motor Law Makes Trouble —Nebraska and Iowa at Odds—Retaliation and Reprisal.**

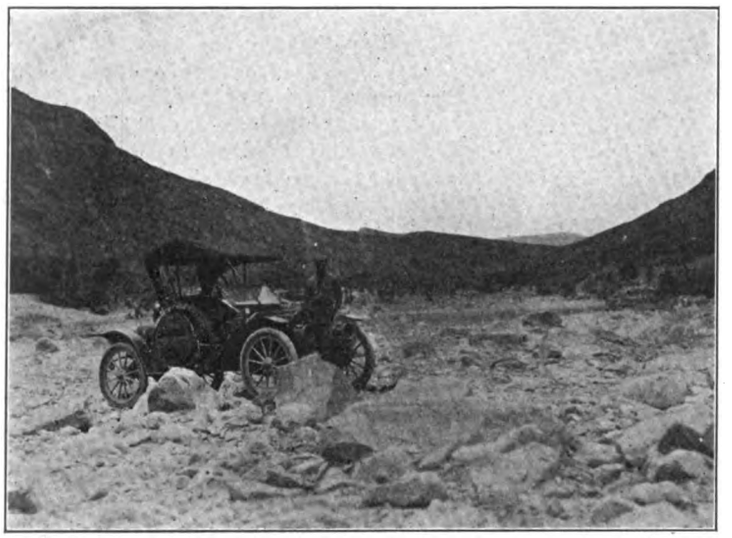
If a foreigner unfamiliar with conditions and possessed of the notion that the United States of America is a free and closely knit republic—if such a man had the run of the press of this country he probably would wonder if something akin to civil war was not being waged between the states.

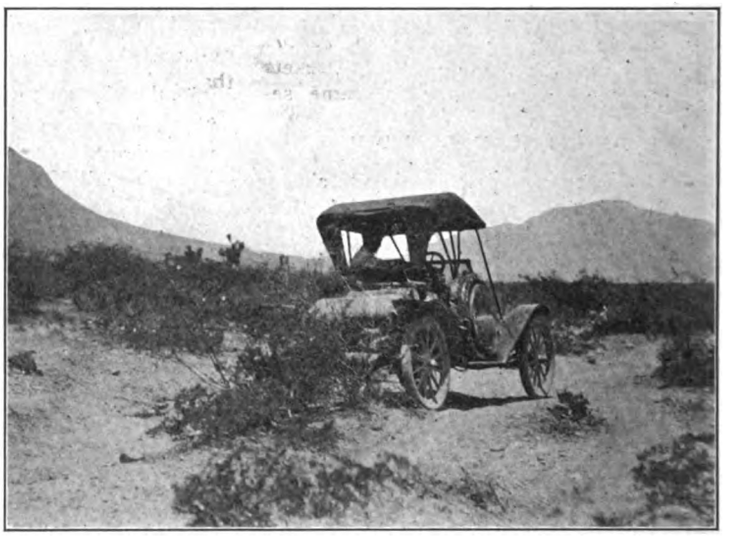
The trouble between Massachusetts and Rhode Island, and the general attack on New Jersey—the original "hold-up" state—and the manner in which its citizens who use automobiles are being legislated against and held up and pounced upon in neighboring states has been followed by "war" between Pennsylvania and Maryland and Maryland and the District of Columbia. Maryland's new automobile law contains a peculiar reciprocal clause, and Pennsylvania having decided that it is not truly reciprocal, has given notice that no Marylander may enter its confines until he shall have paid its "admission fee." Maryland similarly has notified the commissioner of the District of Columbia that residents in the latter place will not be accorded the free use of its roads; they must pay the full registration fee or remain away. John T. Hyatt, a Washington (D. C.) motorist, already has been arrested and fined for failure to pay the fee and has appealed his case; he will attack the constitutionality of the Maryland law, alleging among other things that it "obstructs passage to and from the National Capital." The District commissioner is planning reprisals. Under the District regulations, no fee is exacted of visiting automobiles, although they are required to register their cars on arrival.

The spirit of warfare has penetrated even to the West, a number of Omaha (Neb.) motorists who crossed the river into Council Bluffs, Ia., were arrested in the latter place. Two of them were Nebraska automobile tradesmen and they were discharged on the plea that they were using "demonstrating machines" despite the fact that these machines were used regularly by their families. As the Nebraska law makes no reference to "demonstrating cars," the Council Bluffs court held that their failure to display numbers was not a violation of the law of their state and that the Iowa reciprocity clause did not apply.

### Finds Roads Worst Under Third Flag.

While Mexico has no monopoly on vile roads, the difficulties of automobile travel in that country, as discovered by the pilots of the Flanders "Under Three Flags" car, have proven worse than anything on this side of the Rio Grande. The little runabout, which is nearing Mexico City, had a hard time crossing ruts and ravines, following goat trails across the mountains, bumping the ties of railroad bridges, plowing through almost bottomless sand and picking its way along the bed of a river among a profusion of rocks of all sizes and shapes. The photographs shown herewith tell their own story. On many occasions picks and shovels had to be requisitioned in order to render a sand hill "climbable," or to open a path. Rock-strewn desert, where water is scarce and precious, where the dim trail disappeared among the cactus and the sand, has been the kind of landscape through which the Flanders traveled—and its occupants are glad the task they set themselves has been nearly accomplished. But though the roads were bad, the travelers had nothing to complain of when it came to the question of hospitality. Although water is so precious in the arid districts that it has to be carried in for many miles to the haciendas, gallons of it were freely presented to the tourists.





SUGGESTIVE SCENES IN THE FLANDERS "UNDER THREE FLAGS" EXPERIENCE

## CANNOT CLOSE BOSTON'S PARKS

**Mayor Fitzgerald's Attempt is Defeated by the Highway Commission—Motorists in Force at the Hearing.**

Mayor Fitzgerald's efforts to close the Boston parks and parkways to automobilists to "get even" with the state of Massachusetts because of its refusal to permit the city to share the money collected for registrations and licenses have not had any more effect than was expected. His application to the Massachusetts highway commission for permission to close the parks "threw a scare" into the Bay State motorists, and they were present in force on the 27th ult. when the application was argued and when they opposed the application; none of the three highway commissioners, however, was sufficiently impressed with the importance of the occasion to be personally present; they were represented by deputies. There was much heavy oral artillery brought to bear against the mayor's proposal, but he himself was the only speaker in its favor, and he handled the subject rather gingerly and was inclined to be evasive when pressed for direct replies. The Highway Commission has formally given its decision against the city, and Mayor Fitzgerald will have to repair the park roads with the money at his disposal, and motorists will continue to be free to use them.

### Nebraskans Show High Car Ratio.

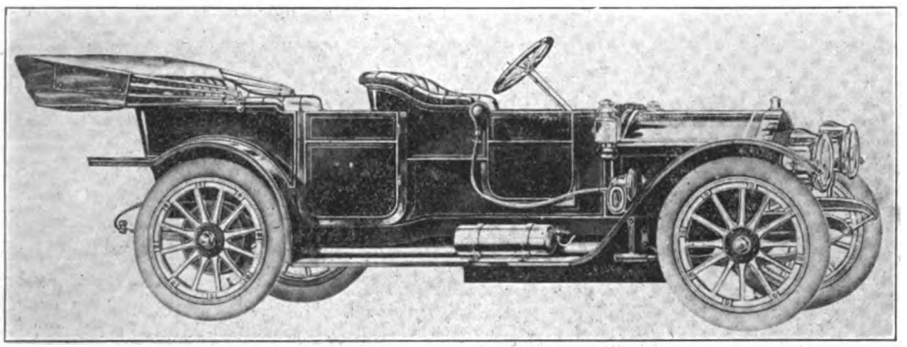
It is estimated that the state of Nebraska now has one automobile for every hundred inhabitants, the total number of cars registered being 12,080. During the first six months of the present year the number of registrations was 3,492, or more than twice the number recorded during the whole of 1909.

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## ENLARGEMENTS IN COLE MODELS

**Dimension Increases that Make for Greater Capacity and Comfort—Four Types of Body are Offered.**

Adding small amounts to a number of the principal dimensions of the chassis and remodeling the body designs has permitted the Cole Motor Car Co., Indianapolis, Ind., to announce a more pretentious product than its previous one, in the new models which are practically ready for delivery. Despite the slight increase in price, power and weight, however, the product still remains the Cole "30." As such it is to be produced in four styles with a single chassis used as a basis for the different forms.



NEW COLE "30" FOUR DOOR TOURING CAR

The styles will be known, respectively as the "Palace" touring car, "Flyer" torpedo roadster, "Fore-Door" small tonneau and "Fore-Door" touring car. The two first-named will sell for $1,600 each, which represents an increase of $100 in price over the cost of the previous models. Due to the nature of the four door models and their style of equipment, both the small tonneau and touring shapes will sell for $1,650.

In general method of construction and detail arrangement of parts the product remains about as heretofore. The power plant is of the unit type, compact and neatly constructed. The four-cylinder motor is water-cooled, fired by dual ignition, and generally put up and equipped in approved fashion. The clutch is of the leather-faced cone type, fully encased in the unit transmission housing. The gear set is of the selective sliding pinion pattern, and affords three forward speeds in addition to the reverse. The driving shaft is led direct to the bevel driving gears on the differential group of the full floating rear axle.

The latter, it may be mentioned in passing, is roller bearing mounted. The front wheels and steering pivots, on the other hand, are carried on ball bearings. The braking equipment is of the double, expanding and contracting type, and is mounted on the rear wheels.

The frame is of double-drop form, of heavy channel section. Semi-elliptic springs are used in front and scroll-end, full elliptics in the rear. The built-up type of worm and sector steering gear with standard motor control on top of the column is used. The bodies are all constructed of sheet steel laid upon solid ash frames.

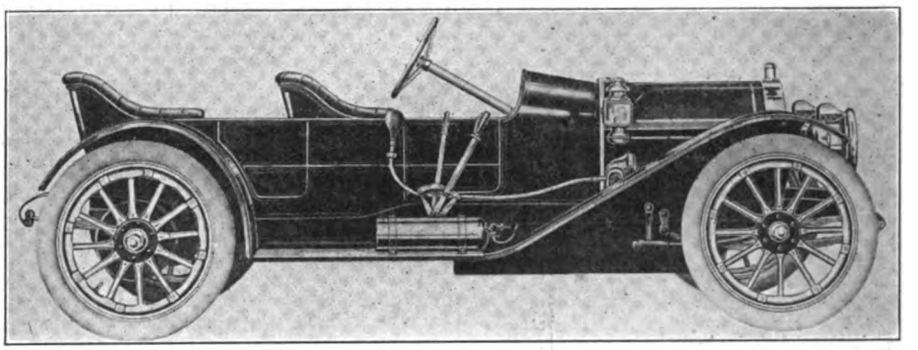
In regard to the distinction between the forthcoming models and those which are now current, these are the more important alterations which have been introduced: Besides slightly altering the design of the valves, the cylinder dimensions have been increased from 4 by 4 inches to 4¼ by 4½ inches, bore and stroke. These changes have resulted in an increase in the rated output on test from 30 to 36 horsepower. Wheel bases have been brought out 7 inches, that specification now being 115 inches, in consequence of which a corresponding increase in the amount of body space available has been brought about. The new models also have 34 by 4 inch tires, as against 32 by 3½. The clearance, however, remains the same as before, that is to say, 10½ inches. The new frames are 140 inches long by 33 inches wide, as compared with 134 by 32 inches. In connection with the addition of considerable metal The gross weight of the car has been brought up from 2,100 pounds to approximately 2,500.

The new bodies have the straight line door effect, in the four door patterns, with raised arm rests. Considerable distinction is lent to the appearance of the models in question by reason of the use of light panel moldings and concealed latches on the doors and also because the double drop in the frame renders the front door sills considerably higher than the rear ones.

The touring car has a low dash which is carried far enough forward to leave room for a narrow vertical panel between the door and the front angle of the body. The small tonneau has been given the racy effect which results from a rakish steering column angle and a hooded dash which is brought well back and upward. Although somewhat similar in general form, the two models thus are of very different appearance.

Of the other two bodies, the "Flyer" retains the deep skuttle dash, high sides and rear oval fuel tank, which distinguished it as originally produced. With the storage touring trunk which is carried on the deck behind the tank and the spare tire carrier, top and other equipment, the machine is entirely distinctive in appearance and pleasing as well. The "Palace" touring car retains more nearly the lines of the standard American product.

Among the several suggestive specifications, not already mentioned, are the size of the brakes, which are 12 inches in diameter by 2¼ inch face, or of equal diameter with the master clutch and a quarter-inch narrower of face. Both front and rear springs now are 2 inches wide, as against 1¾ inches on the former product, and the lengths now are, respectively, 40 and 38 inches, front and rear, which were the former dimensions. As before, the gasolene tank holds 14 gallons, and the oil tank six pints.



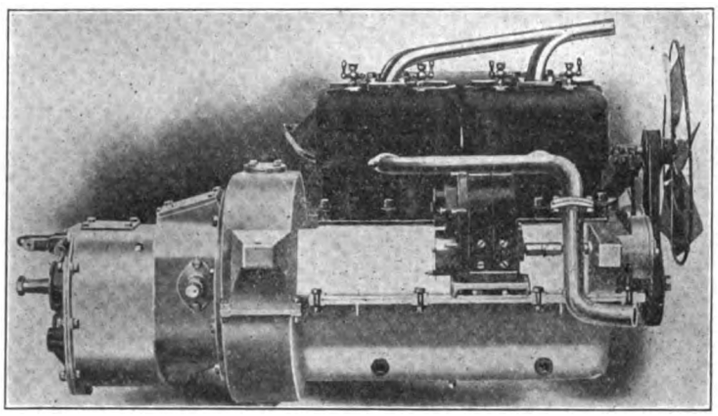
COLE "30" NEW SMALL TONNEAU TYPE

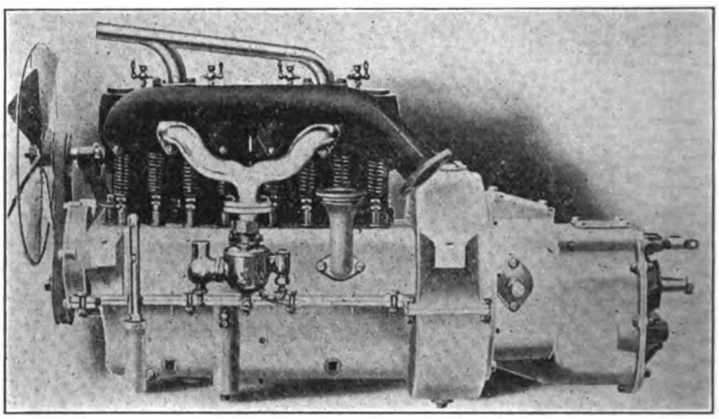
Returning for a moment to the construction of the power plant, the accompanying illustrations afford a good idea of its construction. The carburetter and both sets of valves are mounted on the left side, the right thus being left clear, save for the water piping, and affording ample room fo mounting the magneto, which is drivet from a special gear, actuated from the two-

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to-one group at the front of the engine and completely enclosed within a special compartment of the crank case. The large size of the fly wheel housing shows the relatively great diameter which has been chosen in arranging the balance of the plant; the arms, which are cast integrally with it, serving for two of the four supporting points by which the unit is mounted on the sub frame. The other supports are at the front end of the crank case. The gear casing, which is unusually compact, overhangs at the rear of the power unit and so comes well forward under the footboard of the machine.

In the matter of equipment, the Cole company now provides Firestone demountable, detachable rims, oil dash and tail lamps, a pair of short-couple gas headlights connected with the generator, horn, tools, tire repair kit, pump and jack.





RIGHT AND LEFT SIDE VIEWS OF THE COLE "30" UNIT POWER PLANT

### Provides Special Light for Number.

Among the several manufacturers who are paying especial heed to the legal requirements of illuminating registration numbers is the Pierce-Arrow Motor Car Co., Buffalo, N. Y. The standard Pierce-Arrow lighting equipment on all the new models includes no less than six lamp fixtures. As in the past, combination oil and electric dash and standard tail lights are employed, in addition to the acetylene headlights. The latest addition is a specially constructed electric lamp which is so mounted and enclosed by a slotted tubular reflector as to shine directly on the number plate and illuminate it brightly.

### Lowell Abandons Road Race Project.

After a long fight in the face of innumerable obstacles placed in its way by the opposition element, the Lowell (Mass.) Automobile Club has abandoned all efforts to repeat its annual road races on September 15th and 17th, over the Merrimack Valley circuit. The threatened injunction proceedings by the remonstrating residents along the course being the culminating objection which caused the club to drop the project.

## FINDS NEW CAUSE FOR VIBRATION

### Expert Discovers Effect of Momentary Slippage—Method by Which Trouble May be Remedied.

Sometimes an otherwise peaceable and well-disposed engine appears to develop a most perplexing tendency to clatter and shake when run at high speeds on level or only slightly inclined roads, the cause of the difficulty being extremely difficult to locate. That such vibration may not be in the engine at all, but may arise from conditions entirely local to the clutch, is the observation of one expert.

"As a rule the objectionable sensation is a combination of very small but very noticeable vibrations communicated through the footboard and accompanied by a good deal of noise—more than the speed of the car seems to warrant," he explains. "In cases of this sort the trouble is very often due to a slight slipping of the clutch. It is more likely to occur with a plate clutch than with a leather cone clutch, but it may, and does, happen with both. When the engine is running fast, and, of course, developing high power, it may develop just a little more than the clutch can transmit without slipping. The engine does not race as it would do if the clutch were much too lightly adjusted, but a very small amount of slip takes place at each impulse, thus setting up this insidious and penetrating vibration. The remedy for this is to tighten the clutch spring slightly.

"At first sight it may seem improbable that any but a negligent driver could have the clutch slipping in this way, because one is apt to argue that as the clutch does not slip noticeably uphill it is extremely improbable that it will slip upon the level. Two points are forgotten, however. One is that on the level the engine may be running faster and therefore giving more power, so that it is quite possible to have no sensible slip uphill and yet to have the small degree we have mentioned on the level when the engine is exerting something approaching to its full power. . . .

"The other point which is often forgotten is that the irregularities of road surface are always tending to set up slight distortions of the frame of the chassis, and this, taken in conjunction with the high engine speed giving full power, and a slightly weak clutch spring, will encourage the partial slipping we have referred to by the ever present tendency of the driving and driven portions of many clutches to become out of alignment with one another. The presence of an efficient universally-jointed shaft between the engine and gear box of course eliminates this tendency to malalignment.

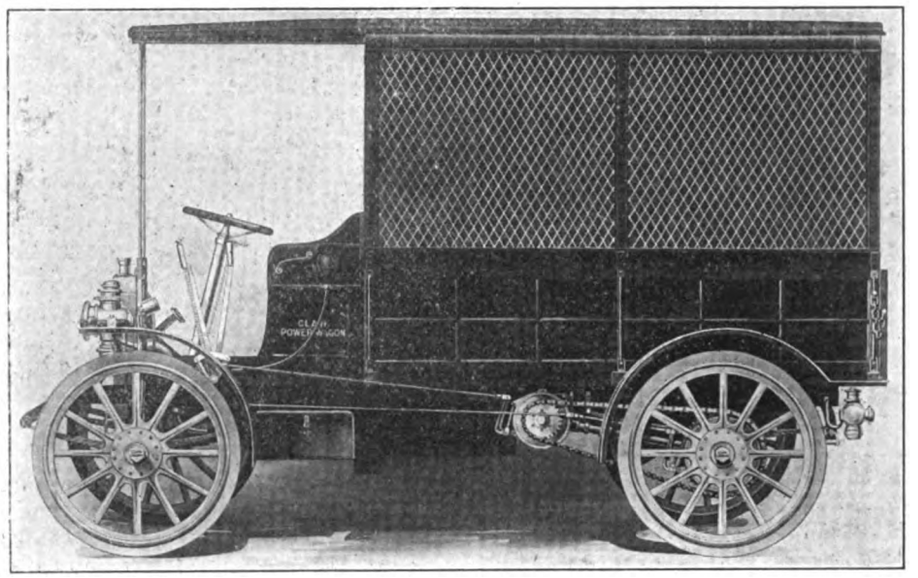
"Another insidious cause of coarse running of good engines is in the clutch cone. We say good engines advisedly. If a man owns an engine by a good maker he naturally assumes that it is well balanced, and his confidence is justified in the majority of cases. If, however, he find more vibration than should reasonably be expected at high or fairly high engine speeds, it is quite worth while to look to the balancing of the clutch cone. It may be noticed on examining the flywheel that it has one or more holes drilled in its rim and sometimes in its disc. These holes have been drilled to balance the wheel, so that any slight inequalities of density in the flywheel as a mass or irregularities due to imperfect casting may be removed, after it has been carefully tested and ascertained from which part of the wheel the unbalanced weight should be taken. On the other hand, the clutch cone—that is, the male portion of the clutch which carries the clutch leather—is not always attended to by otherwise careful makers. They may balance their flywheels very carefully and yet forget that the clutch cone also requires similar treatment. The disturbing effect of an unbalanced flywheel is of course likely to be much more serious than that of an unbalanced clutch, owing to its greater mass. At the same time trifling differences in the weights of the clutch cone arms or sections of the rim will and do upset the balance of modern high speed engines."

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## MEETING AVERAGE SERVICE NEEDS

**Clark Produces a Medium Capacity Car for the Purpose—Original Features in Transmission and Oiling.**

Whatever difficulties are supposed to be inherent to the commercial vehicle problem, it generally is conceded that the construction of a perfectly satisfactory car for medium and light loading purposes is extraordinarily perplexing. With the idea of producing a design both trustworthy and original, the Clark Power Wagon Co., of Lansing, Mich., after making a special study of the subject, has developed a machine of many good points, which is rated at 1,500 pounds capacity and which, therefore, is suited for either heavy delivery or light trucking purposes. The Clark power wagon, as it is called, is marketed by the Radle-Clark Sales Co., of Detroit, which has just announced the details of its construction.

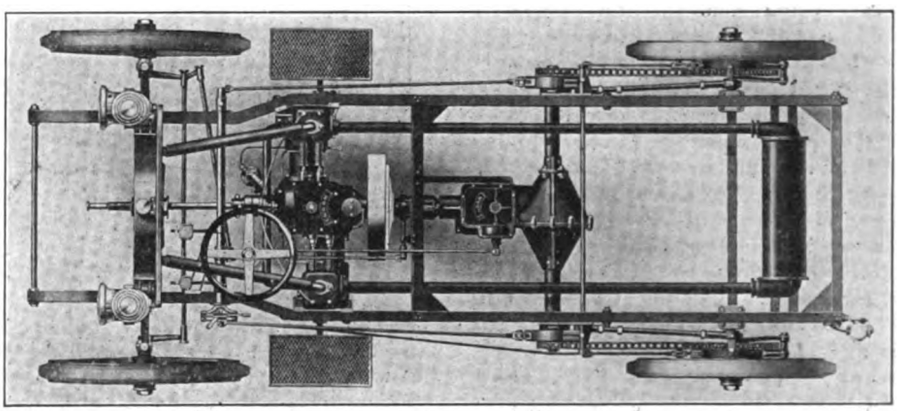


THE CLARK POWER WAGON WITH EXPRESS BODY

In working out the design careful thought has been given to developing in it what may be termed the four cardinal points of commercial car structure, namely, strength, simplicity, freedom of action and ease of control. The result embodies a number of rather striking features, as, for example, in the sturdy running gear, the simplified oiling system, the special provisions against the dragging of the brakes and the adoption of set spark ignition and automatic interconnection between the brakes and clutch.

As it is intended for handling either full capacity loads in small bulk or large and light loads, the chassis is designed for conversion in the matter of body equipment and tires. The seat and dash are made integral with the chassis, but either of several types of stock body may be fitted without alteration to the gear. In the matter of tires, the standard equipment is of the side-wire solid variety, 36 by 2½ inch size, Firestone "Q. D." demountable rims being employed. At a slightly advanced cost, the same rim equipment may be used with 36 by 3½ inch pneumatics. The wheel base is 102 inches.

The frame is of pressed steel 3-16 inch thick, 2 3-16 inches wide and 3¾ inches deep. The front, center and rear members are reinforced by heavy gusset plates and all joints are hot riveted. Semi-elliptical springs are used in front and three-quarter platform members in the rear. The front members of the suspension are 38 inches long, the side members of the rear group are 42 inches in length, while the rear cross member is 37 inches long. All springs are 2 inches wide.



CHASSIS VIEW OF THE CLARK POWER WAGON

The axles are 1¼ by 2¼ inches, rectangular section. The steering gear is of the Ross type, with special provision made in the connections for the renewal of small sections when wear occurs. The wheels are mounted on taper roller bearings. Two sets of brakes are used, one on the transmission counter shaft and one on the rear wheels. Both sets are of the constricting band type, the former being the service members. These have 9 inch drums with 1¾ inch face, while the emergency brakes have 13 inch drums and 2¼ inch face.

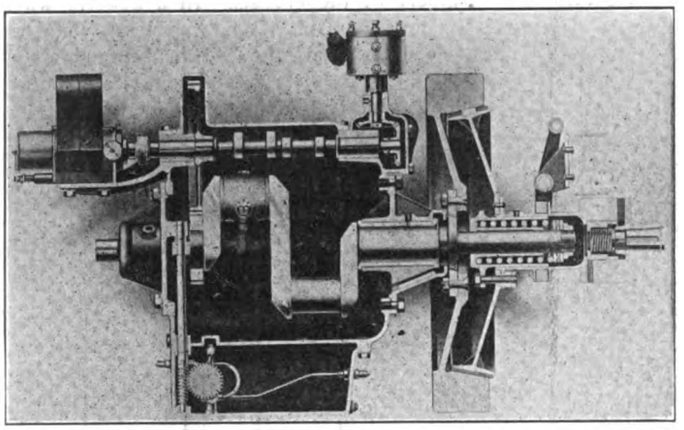
The motor, which is located in front and under the foot board and seat, embodies a number of original and promising features. It is of the horizontal opposed type, with 5 by 5½ inch cylinders, and is placed transversely of the chassis. In a general way, the arrangement of the engine mechanism is conventional, the valves being located side by side on top and actuated from a single cam shaft which occupies the upper section of the crank case. One unusual point in its construction, however, is the mounting of the valve lifter guides independently of the crank case cover; this permits the engine to be run for inspection purposes with the cranks and valve mechanism exposed.

Lubrication is carried out by the most approved means. A sump is provided in the bottom of the case into which all surplus oil drains. From this reservoir a multi-feed pump lifts the lubricant to supply directly the pistons and main journal bearings. The wrist pins are oiled by a flow induced by the movement of the piston, which carries the surplus from the cylinder walls around a recess in the pistons, through the interior of the pins, and so back to the crank case. The big ends of the connecting rods are oiled by a stream which is forced through a duct in the crank shaft. A special point to be noted in this connection is that the oiler is non-adjustable. This provision is made for the sake of simplifying the driver's work and at the same time ensuring an adequate supply of oil to all important parts independent of the skill of the attendant.

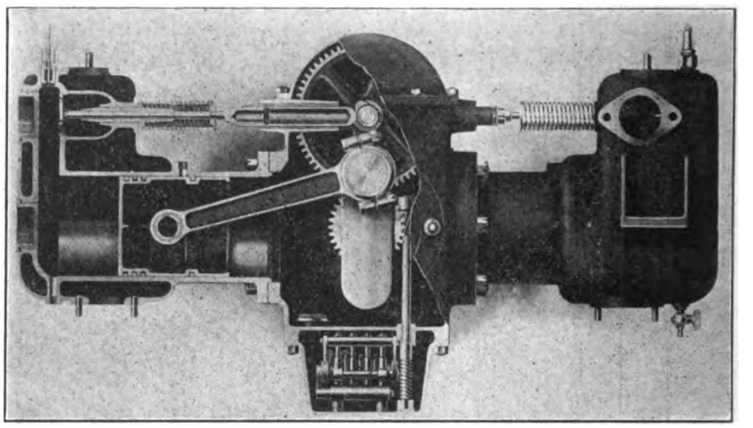
A special form of double ignition is provided, the intention being to accomplish all ordinary running on the magneto, leaving the battery side of the system for use in starting only. To this end the battery equipment is made unusually liberal, 15 cells being used, connected in three series.

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The battery box is hermetically sealed, and when used only for starting, the experiment is guaranteed to last for one year without renewal. A single unit coil is employed, and the time-distributor is mounted above the rear end of the crank case and driven by bevel gears from the cam shaft. The U & H magneto, which is used for ordinary running purposes, is mounted on a bracket which extends forward of the crank case and in line with the crank shaft.



CLARK MOTOR AND CLUTCH CONSTRUCTION



VIEW SHOWING CYLINDER AND OILER DESIGN

It is permanently set for normal advance and is fixed. Thermo-syphon circulation is used in the cooling system, all hose being of the oil-proof, wire insert type.

Transmission is carried out through a cone clutch fitted with cork inserts, and a selective sliding gearset. The latter is mounted in a unit housing with the counter shaft, the final drive being by means of double side chain. The gears, it is explained, are made of such massive proportions that it is practically impossible to strip them through careless handling. At the same time it also is explained that the sliding pinion type of change gear was chosen in preference to the planetary type, which is so common on machines of the same general class, for the reason that it leaves the engine absolutely free when the car is at rest, which, in turn, permits the engine to be throttled down to extremely low speed.

But two forward speeds are provided by the gears, the maximum, which is obtained by a direct through drive arrangement, being designed for a car speed of about 15 miles an hour. The gear ratio on direct drive is 9 to 1, and on the low speed, 18 to 1. The gearsets and counter shaft are mounted on F & S annular ball bearings. In connection with the final drive to the wheels, provision is made for readily altering the gear by interchanging the front sprockets, which are held in place on their bosses by means of six bolts.

The control mechanism has provision for releasing the clutch whenever either brake is applied. As in the standard type of pleasure vehicle, the clutch and service brake are actuated by pedal, while the emergency brake and change gear operations are obtained by means of levers. For regulating the speed of the motor a throttle lever is mounted under the steering wheel.

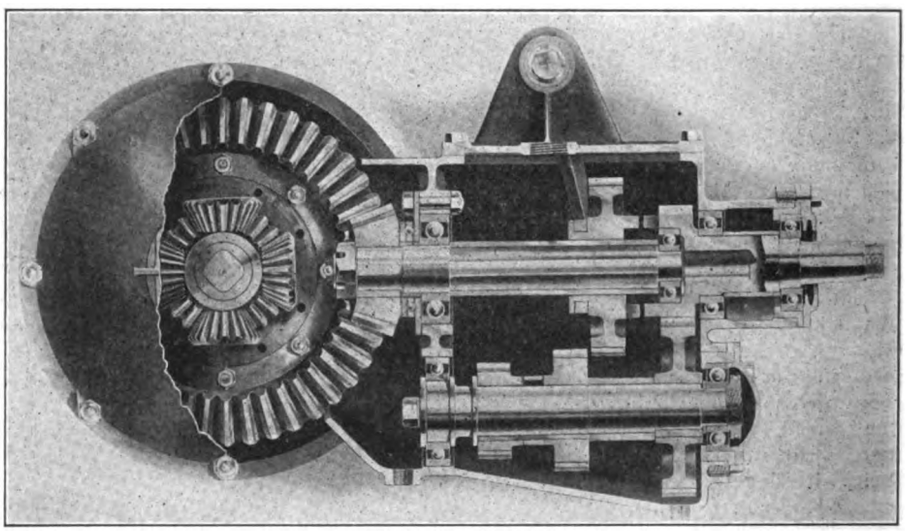
### Lubrication Proportional to Power.

Foreign automobile engineers are discussing the question of regulating engine lubrication from the unfamiliar point of view that the quantity of oil supplied should be proportional to power production as well as to speed. In other words, in lubrication, as in carburation, recognition is being given to the circumstance that hill climbing service throws upon the motor very severe requirements for which regulation on the speed basis alone makes no provision.

Ordinarily adjustment of the oil supply is made proportional to speed on the theory that the faster the engine runs, the greater the quantity of oil which will be wiped off the cylinder walls by the pistons and the greater the supply needed for this purpose and also to maintain the necessary film between the bearings and journals of the revolving bearings. This theory is perfectly tenable, it would seem; nor is it directly brought into question by the present discussion which is being aired abroad.

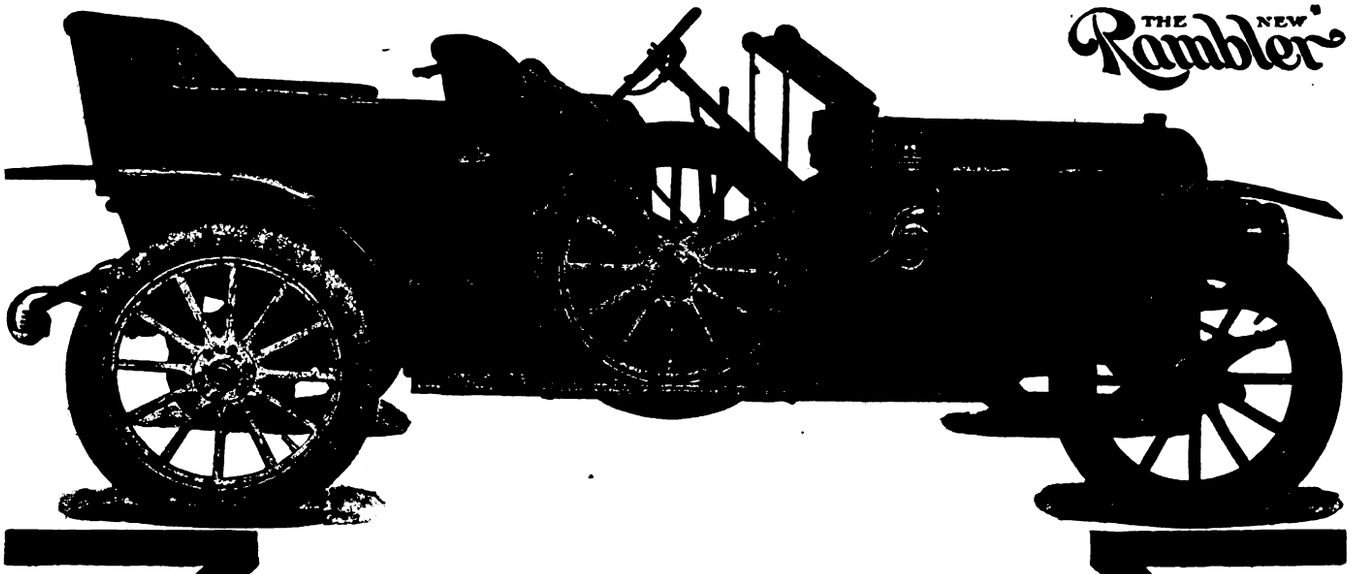
The real question is as to the relative quantity of oil which is absorbed by combustion within the cylinders. Considerable amounts of oil are known to be burned along with the gas, and it is reasonable to suppose that the quantity of oil so consumed is affected in some measure by the heat within the cylinders and also by the amount of gas burned. Hence, it is argued, when the engine is laboring under full load and at a slow speed, the temperature within the cylinders being very high, as great a quantity of oil may be required per stroke as is used when the engine is running at high speed with a light load.

On this hypothesis Commandant Krebs, of the Panhard company, in 1907 patented on arrangement whereby an interconnection with the throttle provided an increase of the supply of oil to the base in proportion to throttle opening and entirely independent of the speed; the speed factor, however, was taken care of by the splash system. Recently the Mercedes company, in Germany, and the Rolls-Royce company, in England, have adopted the same principle.



CLARK CHANGE GEAR AND DIFFERENTIAL UNIT

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THE Fifty-four Toy Tonneau is a mid-season New Rambler model. It is an evolution from the Close Coupled model, designed for the same demand, but a little more roomy.

Its advantages are low seats, two inches longer than usual from front to back. Seat cushions tilted and rakish seat-back to correspond. Body smaller and lighter than the touring car but tonneau roomy enough for three people of average size. Three inches more leg room in front than touring car. Rakish steering column.

With five lamps, Prest-o-Lite tank or generator, magneto and storage battery, horn and tools, $2,250. Top with side curtains, $100. Wind Shield $40. Spare Wheel $85.

## Thomas B. Jeffery & Company

Main Office and Factory: Kenosha, Wisconsin

Branches: Chicago, Milwaukee, Boston, Cleveland, San Francisco

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**Youthful Driver is Heavily Fined.**

Charged with assault in the third degree, 18-year-old Elihu Shedlinsky was fined $100 on Tuesday, the 2d inst., in Special Sessions, Jamaica, L. I., for having run down a girl while he was driving his father's automobile. To avoid crashing into the gates at a crossing on Atlantic avenue, he swerved to the left and struck Miss Rose Bremen, who was standing near the gate waiting for the gates to be opened. The judge, in sentencing Shedlinsky, reprimanded the youth severely and added: "If your father were before me in connection with this case, I should vote to send him to the penitentiary for turning over a powerful engine to a boy 16½ years of age, which you say was your age when first you commenced driving your father's car. A man like that hasn't proper regard for the rights and lives of other people."

**Brooklyn Dealers' Reliability Plans.**

Secret timing stations form the remedy which the Brooklyn (N. Y.) Motor Vehicle Dealers' Association has adopted to prevent speeding between controls and to definitely evolve a winner in each class in its reliability contest on Long Island on the 9th and 10th inst. There will be two divisions, a contest division and a tourists division, the former being sub-divided into three classes according to price as follows: 1A, $800 and under; 2A, $801-$1,200; 3A, $1,201-$1,600. There will be a trophy for each of the above classes, and in addition two additional trophies, one for touring cars and the other for runabouts to be contested for collectively by the entrants in classes 4A, 5A, 6A and 7A. While doubts are expressed as to the efficacy of the plan, the contest committee figure that drivers will not imperil their scores by speeding and "getting in bad" with the timers in the bushes. The class winners will be determined by most consistent running and closest adherence to the official schedule. While the participants in the contest division will be compelled to live up to the A. A. A. rules, the members of the tourists' party can do practically as they please as long as they cover the entire route.

**Carbon Clogging in Exhaust Horns.**

Motorists who experience considerable difficulty from the obstruction of exhaust horns with carbon deposit well may consider whether the difficulty does not lie entirely with the motor rather than with the signaling device. Over-lubrication as a constant practice naturally may be expected to have the same effect upon the horn parts as it does upon the cylinder interior and valves. Therefore a horn valve which sticks occasionally, even though it be of the so-called self-cleaning type, or a horn which sometimes evidences a tendency to blow continuously for long periods need not necessarily be condemned.

**Make Cowardly Escape After Accident.**

One of the occasional accidents which serve to show up the despicable character of some automobile drivers happened on Sunday, a week ago, at White Plains, N. Y., and as a result a 50-year-old man lies seriously injured in the Bloomingdale asylum. The car traveled at high speed and hurled the man, James Dolan, into the bushes beside the road. The automobile was stopped a short distance from the scene of the accident, two men came back to investigate, and, finding Dolan alive, dragged him far into the grass under the shade of a big tree, and then sped on, making no report of the accident. Dolan remained in a semi-conscious condition for fourteen hours under the tree, until a passer-by discovered him. The whole township is embittered against the guilty motorists and their wrath is apt to find some innocent victim if the real culprits are not discovered.

**Picked Wrong Man for Comments.**

Because he did not exercise sound judgment while driving a new machine, W. F. Swavely, of Reading, Pa., a tester for the Reading Automobile Co., was fined $10 a few days ago. Swavely drove his car past a stopping trolley car and came near knocking down one of the passengers alighting from the latter. He made a few rather terse remarks, and discovered to his dismay that the passenger he was berating was Judge Henry K. Ward.




**Scores of Announcements and Advertisements of 1911 Models call attention to the fact that cars they advertise are equipped with**

# Bosch Magneto Ignition

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# You Can Always Depend On Reliance Spark Plugs

The power of your engine depends on receiving a quick, condensed spark of intense heat for every charge of gas.

Buying cheap spark plugs means that you are almost certainly reducing the efficiency of your engine.

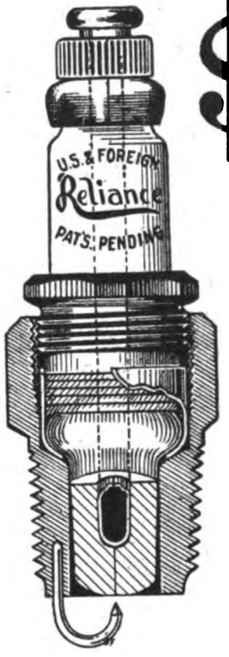
The Reliance delivers a concentrated, hot spark, *every time,* regardless of any accumulation of soot, carbon, etc., which will put cheaper spark plugs out of business. You can always depend on it.

Here is a test that will show you that the Reliance cannot be short-circuited like the ordinary spark plug. Put both plugs in a glass of water, turn the current on, and the Reliance will spark right along. No other plug will do the same.

The Reliance needs no attention. Its action does not depend on valves or moving parts, but is entirely electrical in action.

There is no combination we have yet found in any kind of gas engine cylinder that will make the Reliance lay down and quit.

Isn't that the kind of spark plug you want in your engine?




$1.00




Ask your dealer for the Reliance. If he hasn't it, don't run risks of trouble by accepting a cheaper substitute, but write to us. We will fill all orders promptly, prepaid, on receipt of price.

Our booklet on spark plugs makes interesting reading for every owner of an automobile or motor boat. Send for a copy—to-day, while you think of it—and get one of our astonishing electrical novelties free.




*Magneto Type, $1.25*

## Jeffery-Dewitt Co.

**Manufacturers of Reliable Spark Plugs**

**52 Butler Ave. Detroit, Mich.**

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## RECENT PATENTS.

962,110. Internal Combustion Engine. George John Altham, Fall River, Mass. Filed March 28, 1907. Serial No. 364,980.

1. In a two-cycle internal combustion engine, the combination with a cylinder having an air inlet port for the admission of air and a separate inlet port for an explosive charge situated below the air inlet port, of a piston in the cylinder which by its movement opens said ports simultantously to admit both air and an explosive charge to the cylinder below the piston, said cylinder having another port and the piston also having a port which registers with said other port when the piston is at the end of its power stroke whereby first air and then the explosive charge are transferred to the working end of the cylinder.

962,140. Carburetter. Charles E. Hall and William Dicks, Buffalo, N. Y., assignors to Charles E. Hall Company, Buffalo, N. Y. Filed Oct. 18, 1907. Serial No. 398,067.

1. In a carburetter, the combination of a casing having an air passage, a spray pipe arranged transversely in said passage and having a plurality of discharge orifices in one side thereof, a throttle valve comprising inner and outer shells arranged transversely in said passage to turn on an axis parallel with said spray pipe and having holes in the sides thereof adjacent to said nozzle, and means for turning said shells in opposite directions to increase and decrease the area of the opening provided by said holes, whereby the discharge orifices of said pipe are covered and uncovered successively and said opening is kept concentric with respect to said pipe, substantially as set forth.

962,159. Valve Controlling Mechanism for Internal Combustion Engines. Frank J. Miller, Cleveland, Ohio. Filed Oct. 4, 1909. Serial No. 520,787.

1. In an internal combustion engine, a valve gear including in combination, a bearing pin having a hole therethrough, the said hole diverging from the middle to its ends, a support for said pin, a rocker fulcrumed on said pin and operatively connected to the valve, a pin rigid with the rocker and extending through the said hole, and means to operate the rocker.

962,220. Number Plate Support for Vehicles. William B. Hughes, Cleveland, O. Filed June 19, 1909. Serial No. 503,066.

1. A device of the character set forth comprising a base having a vertical socket, said socket being provided with an elongated slot and with a transverse enlargement of said slot, a set screw carried by the socket and adapted to be adjusted thereacross at said enlargement, a lamp supporting member carried by said base, and a number plate supporting member also carried by said base.

962,221. Number Plate Support for Vehicles. William B. Hughes, Cleveland, O. Filed July 10, 1909. Serial No. 506,885.

1. A device of the character set forth comprising a base having at one end thereof a vertically extending socket and a horizontal socket above the first-mentioned socket and having at its opposite end a lamp supporting post having a face inclined with respect to the axis of the horizontal socket.

962,233. Air Cooled Engine. William J. Miller, Springfield, O., assignor, by mesne assignments, to The Kelly Motor Truck Company, Springfield, O., a Corporation of Ohio. Filed May 11, 1908. Serial No. 43,142.

1. In a two-cycle engine, a cylinder, an exhaust port, a supply port or passage, an air jacket for said cylinder forming an air passage about the same, and means for forcing a current of air through said air passage, said exhaust port being located intermediate the air outlet from said jacket and said supply port or passage and in proximity to the latter, as and for the purpose specified.

962,247. Connection for Vehicle Wheels. Albert F. Rockwell, Bristol, Conn., assignor to The New Departure Manufacturing Company, Bristol, Conn., a Corporation of Connecticut. Filed Oct. 19, 1905. Serial No. 283,475.

1. The combination with a hollow driving axle, and a wheel, of a two-part socket member each element of which has a stem received in said axle and has also a head provided with a socket, a two-part connector each of whose elements has a socket and also a trunnion portion received in the said sockets of said socket member, and a second connector in driving connection with said wheel and having trunnions received in said sockets of said two-part connector; substantially as described.

962,248. Mechanism for Feeding Fuel. Albert F. Rockwell, Bristol, Conn., assignor to The New Departure Manufacturing Company, Bristol, Conn., a Corporation of Connecticut. Filed Oct. 19, 1905. Serial No. 283,476.

1. The combination with a plurality of engine cylinders and a charge supply, of a controller connected with the supply and provided with a plurality of ports, a pump, separate connections leading from the ports to the pump, means in the controller for successively covering and uncovering the ports to successively cut off the supply from communication with the pump, and means separately connecting the pump with each of the engine cylinders.

962,249. Cooling Means for Motors. Albert F. Rockwell, Bristol, Conn., assignor to The New Departure Manufacturing Company, Bristol, Conn., a Corporation of Connecticut. Filed Jan. 11, 1906. Serial No. 295,639.

1. The combination with a cylinder having an exhaust port, a piston, and an inlet port, of a valve closing said inlet port and adapted to be opened by pressure upon its outer side, a casing about said cylinder and provided with inlet and outlet ports, a pump including a reciprocatory piston, connection between said outlet port of said casing and both sides of said pump piston, inwardly opening check valves in said connection, connection between said pump and said outer side of said inlet valve to said cylinder, and an outwardly opening check valve in said latter mentioned connection; substantially as described.

962,250. Cooling Means for Motors. Albert F. Rockwell, Bristol, Conn., assignor to the New Departure Manufacturing Company, Bristol, Conn., a Corporation of Connecticut. Filed Feb. 5, 1906. Serial No. 299,611.

The combination with a motor cylinder, of a casing surrounding the same, a check valve for normally closing a port in the casing, said check valve having a tubular stem, a check valve for closing an opening in the cylinder, and having a stem slidable within the tubular stem of the casing valve and means for drawing air into the casing and then introducing it into the cylinder.

962,251. Pump. Albert F. Rockwell, Birstol, Conn., assignor to The New Departure Manufacturing Company, Bristol, Conn., a Corporation of Connecticut. Filed Feb. 5, 1906. Serial No. 299,612.

1. The combination with a pump cylinder, of a partition therein having inlet and outlet ports, and a rocking valve within the pump cylinder and actuated by the pump piston.

962,252. Equalizing Device. Albert F. Rockwell, Bristol, Conn., assignor to The New Departure Manufacturing Company, Bristol, Conn., a Corporation of Connecticut. Filed Feb. 23, 1906. Serial No. 302,527.

1. A gearing including a drive member, a plural number of driven members, a clutch member rigid on each of said driven members, movable clutch members on said drive member for automatically engaging the said rigid clutch members during the rotation of the drive member in either a forward or a rearward direction, and means for preventing movement of the said movable clutch members; substantially as described.

962,253. Controller. Albert F. Rockwell, Bristol, Conn., assignor to The New Departure Manufacturing Company, Bristol, Conn., a Corporation of Connecticut. Filed March 12, 1906. Serial No. 305,664.

driven part, a motor therefor, and.cmfwp

1. The combination with a driven part, a motor therefor, and a brake for said driven part, of a source of charge supply for said motor, a generator of charge-exploding energy for said motor, means for operating said generator to render the same active and inactive, means for operating said brake to render the same active and inactive, and a controller provided with means for controlling the supply of charge to said motor, with means for controlling the operating means for said brake and with means for controlling the operating means for said generator; substantially as described.

962,254. Motor. Albert F. Rockwell, Bristol, Conn., assignor to The New Departure Manufacturing Company, Bristol, Conn., a Corporation of Connecticut. Filed March 12, 1906. Serial No. 305,664.

1. The combination with an engine cylinder, a gas mixture supply mechanism therefor and means for controlling the operation of said mechanism, of an air pressure reservoir, air admitting and exhausting devices being a check valve, and means for controlling the operation of said devices whereby the check valve may become the admitting device.

962,255. Sparking Apparatus. Albert F. Rockwell, Bristol, Conn., assignor to The New Departure Manufacturing Company, Bristol, Conn., a Corporation of Connecticut. Filed March 12, 1906. Serial No. 305,665.

1. In a sparking apparatus, an electrode, a piston movable toward and away from the same, said piston being rotatably mounted and shifting about its center of

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rotation as it moves toward and away from said electrode, and a sparking ring removably mounted upon said piston and constituting the co-operating electrode; substantially as rescribed.

962,256. Vehicle Body Support. Albert F. Rockwell, Bristol, Conn., assignor to The New Departure Manufacturing Company, Bristol, Conn., a Corporation of Connecticut. Filed March 19, 1906. Serial No. 306,836.

1. The combination with a vehicle running gear, of rocking elements carried by the running gear, torsional springs coiled about the rocking elements and having movements independent of the movements of the rocking elements, one part of each torsional spring being fixed to a rocking element, and a body frame spaced from the rocking elements and connected to the torsional springs.

962,257. Steering Device. Albert F. Rockwell, Bristol, Conn., assignor to The New Departure Manufacturing Company, Bristol, Conn., a Corporation of Connecticut. Filed May 3, 1906. Serial No. 315,079.

A motor for steering mechanism, comprising a receptacle having fluid pressure supply and exhaust ports, valves in the respective ports and arranged for co-operative movement, means for unseating one valve when the other is seated, and a stem on one of the valves for supporting the other valve.


KLINE KAR

New Series Model 6-40 Now Ready

EVERY LIVE DEALER

owes it to himself to examine the KLINE-KAR and understand what it really is and what it represents.

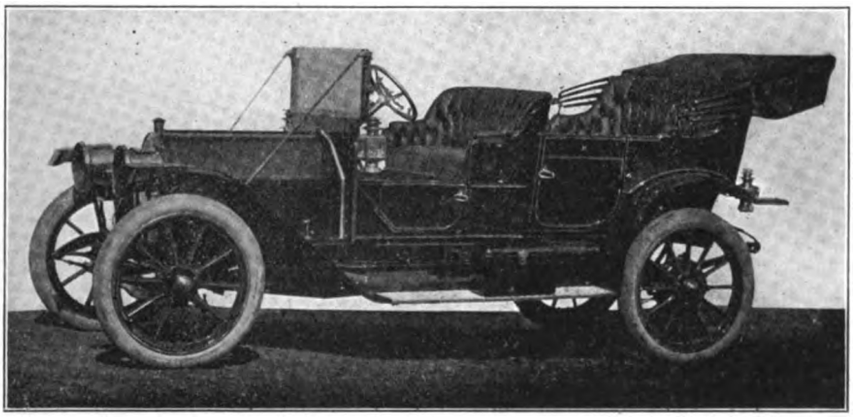
It is offered as the last word in present day automobile construction.

Avoiding extremes, the KLINE-KAR represents the ideal of the average buyer. At its price—$2500—there is nothing that compares with it.

At any price the KLINE-KAR acknowledges no superior.

The man who knows most about motor cars best appreciates the KLINE-KAR.

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*The Original Type*

Simplest in Construction
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Milltown, New Jersey


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962,258. Vehicle, Albert F. Rockwell, Bristol, Conn., assignor to The New Departure Manufacturing Company, Bristol, Conn., a Corporation of Connecticut. Filed March 30, 1906. Serial No. 308,891. Renewed Jan. 4, 1909. Serial No. 470,598.

1. The combination with a base frame and a body frame, of rockable elements carried by the base frame, spring arms carried by said rockable elements and connected to the body frame, wheels carried by the base frame, rigid members carried by the rockable elements and connected to the wheels, and means for rocking said rockable elements.

962,259. Support for Vehicle Bodies. Albert F. Rockwell, Bristol, Conn., assignor to The New Departure Manufacturing Company, Bristol, Conn., a Corporation of Connecticut. Filed Feb. 23, 1906. Serial No. 302,526. Renewed Feb. 8, 1909. Serial No. 476,820.

1. In a vehicle, the combination with a running gear, a body frame, and a body, of rock shafts upon said running gear and provided with rock arms, brackets upon said body frame and connected to said rock arms, and springs supported upon said brackets and supporting said body; substantially as described.

962,272. Auto Sleigh. Oscar John Tubbs, Waterville, Me. Filed Aug. 30, 1909. Serial No. 515,225.

1. In an auto sleigh, the combination with a frame, of a shaft rotatably supported on said frame, a pair of hangers pivotally supported on said shaft, propelling wheels on said hangers, a cross rod loosely connecting said hangers, a lever engaging said cross rod adapted to force said propelling wheels into engagement with the roadway, and means for operating said lever.

962,314. Jump Spark Igniter Plug. Louis Bond Cherry, Aberdeen, S. D., assignor by direct and mesne assignments, to The Ball Multi-Spark Plug Co., Aberdeen, S. D., a Corporation of South Dakota. Filed July 29, 1907. Serial No. 385,992.

1. An igniting device having opposing curved smooth electric condenser surface electrodes arranged one within the other and separated by an annular spark gap.

962,371. Feeding Means for Explosion Motors. Woodford R. MacGuyer, Waterbury, Conn., assignor to The New Departure Manufacturing Company, Bristol, Conn., a Corporation of Connecticut. Filed July 29, 1907. Serial No. 385,992.

In a motor, the combination with plurality of cylinders, and a source of fuel supply, each said cylinder being provided with a fuel inlet, of a feed conduit having said inlets opening thereinto at points between the ends of the conduit, and communication between said source of supply and each end of said conduit; substantially as described.

962,406. Wind Shield. Edward S. Adams, Columbus, Ohio. Filed June 7, 1909. Serial No. 500,668.

A shield for automobiles comprising a fixed lower section and an upper section, a pair of interengaging hinge plates upon the front face of the shield at each side thereof, a pair of interengaging hinge plates upon each side of the shield at the rear face thereof, removable pintles for connecting said hinge plates, and means for preventing the complete withdrawal of said pintles from said hinge plates, said means comprising spring tongues adapted to enter reduced portions of said pintles.

962,437. Gas Engine. Frederic O. Kilgore, Minneapolis, Minn. Filed April 7, 1906. Serial No. 310,437.

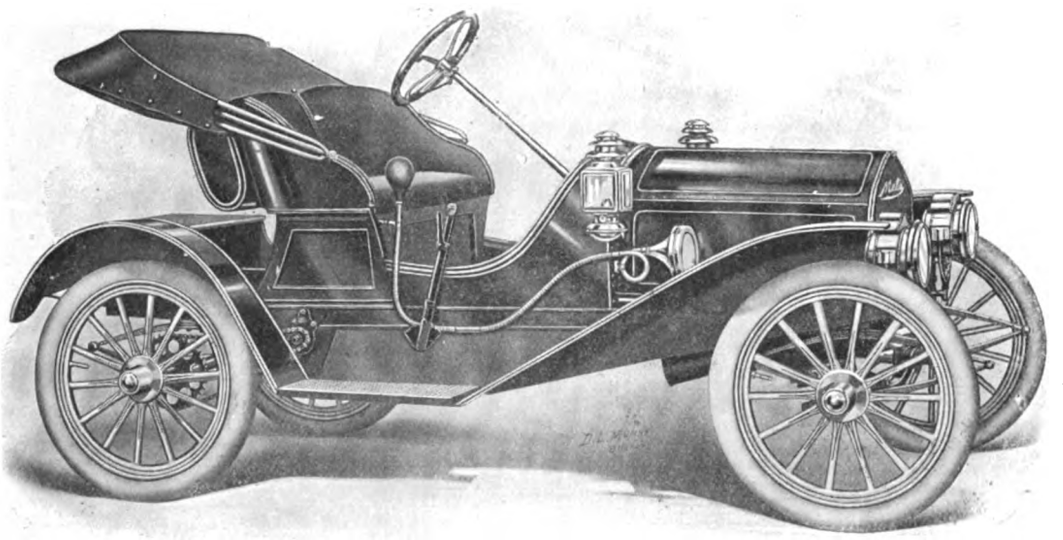
1. In an apparatus of the class described, in combination, an internal combustion engine having a plurality of cylinders, a casing inclosing said cylinders, and provided with a plurality of openings substantially in line with said cylinders, an air jacket for each of said cylinders and communicating with the atmosphere through the opening in the casing in line with the cylinder with which said air jacket co-operates, said air jacket communicating with said casing, and a fan to draw air from the casing and cause cool air to be simultaneously drawn through the air jackets to first make contact with the hottest part of the cylinder, substantially as described.

962,557. Vehicle Spring. William E. Eastman, Boston, Mass. Filed Feb. 1, 1909. Serial No. 475,500.

1. The combination of a spiral and compensating member or extension adapted to support a carriage body elastically, said spiral upheld by the vehicle and said member upheld by the axle and anchored by movable joints, said extension adapted as a lever to compensate the tension of the spiral, means to adjust said spiral to the weight imposed and means to restrict the movement of the axle.


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**SPECIFICATIONS.**

**Motor:** 12 H. P.; 3.5 x 3.3 two cylinders, opposed, offset. Timing gears enclosed. Fan in fly wheel. **Ignition:** Bosch magneto; high tension; jump spark. **Oiling System:** Constant level splash system, operated by automatic pump. **Carburetter:** Schebler automatic. **Transmission:** Friction drive. Any speed forward and reverse. **Frame:** Pressed steel channel section. **Axles:** Tubular. Ball bearings front and rear. **Wheels:** Interchangeable artillery wheels, detachable at hub. **Tires:** Clincher 28 x 3. **Steering:** Hand wheel; geared reduction; no backlash. **Brakes:** Multiple disc in rear hubs; friction disc on reverse. **Control:** Throttle adjusting lever on steering column; foot pedal disc release. **Suspension:** Full elliptic springs front and rear. **Body:** Wood with metal panels; double bucket seat neatly upholstered in genuine leather. Military tank attached. **Equipment:** Top and slip cover, Bosch magneto, gas lamps and generator, three oil lamps, horn and set of tools. **Wheel Base:** 81 in.; tread, 48 in. or standard. Construction of a type that either tread can be obtained by simply reversing wheels. **Weight:** 750 pounds. Two to 40 miles per hour; will climb any reasonable grade. Gasoline capacity over 200 miles. **Finish:** Metz gray; black striping.

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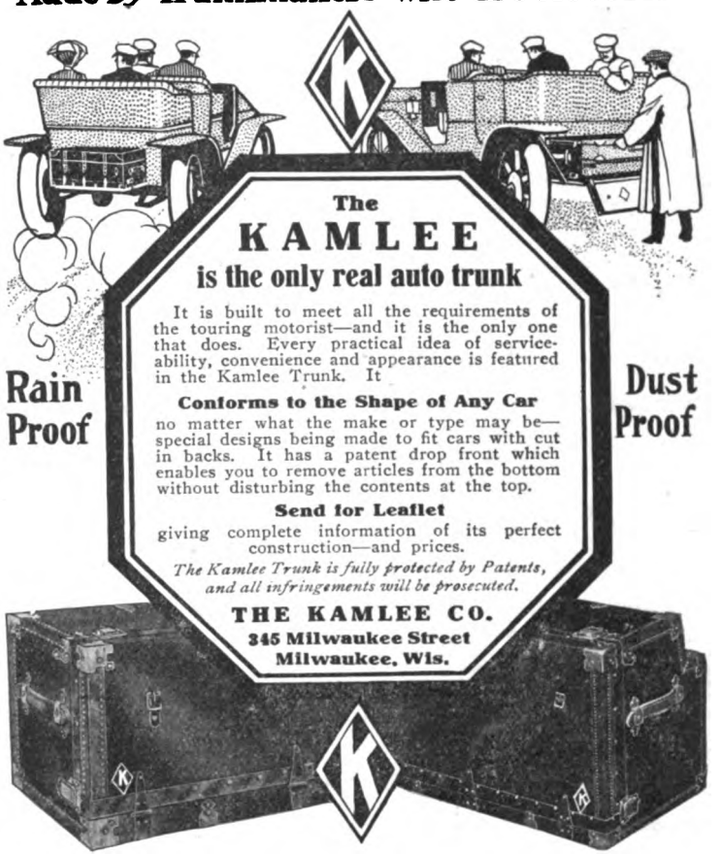
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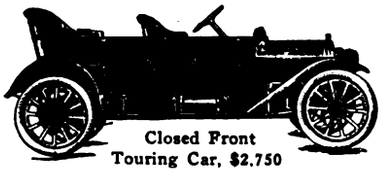
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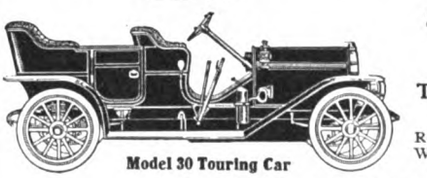
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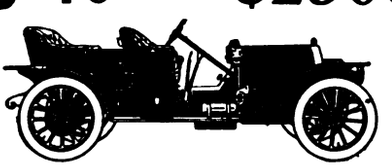
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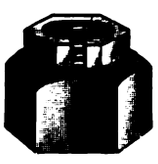
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setting a pace and accomplishing things never before possible to an electric pleasure vehicle.

THESE companies are building all their vehicles to carry the new Edison Storage Battery—because of its increased efficiency, increased mileage, light weight allowing lighter construction of the vehicle, lessening the load on the motor, cutting down tire expense and wear and tear on springs; because it is not injured by overcharging, by a complete discharge, or by standing idle either charged or discharged for any length of time; and because of its extreme ruggedness of construction. With the Edison Storage Battery in its now perfected form, the lead battery is as dead as if it had never existed. The makers of the Detroit and the Bailey have been quick to grasp the opportunity—they are pace-makers.

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Forget all you know about storage batteries. Begin over new—the way Edison did when he produced the new Edison Storage Battery. Forget that there ever was such a thing as a lead-lead in acid battery. The new Edison Storage Battery is nickel and iron in an alkaline electrolyte—caustic potash. No glass or hard rubber container—but light, non-breakable, rigid, fluted, nickeled steel.

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**Edison Storage Battery Company**

**116 Lakeside Avenue, Orange, N. J.**

Pullman

# 1911 Models

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ADVANCE INFORMATION BULLETIN MAILED ON APPLICATION.

DEALERS: Only a limited number of machines will be built in the 1911 season, which will be constructed for delivery on specified dates. It behooves progressive dealers to make immediate application for territory as applications must necessarily be treated in the order received.

It has been found impossible to improve upon the design and construction of 1910 models which will be continued with only detail changes.

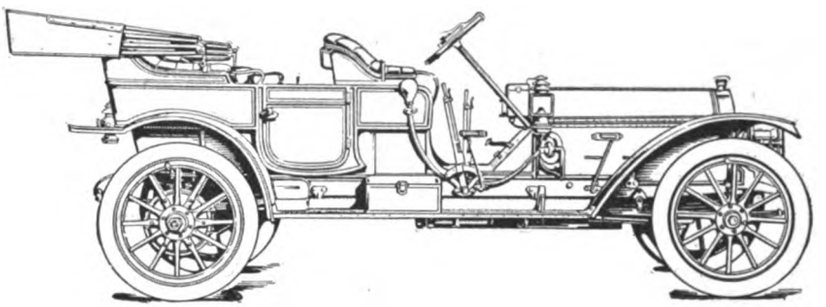
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## THE MODEL AA—ITS POWER

¶ When ascending a hill—the primary sensation is, being moved by a gentle but irresistable force, not that feeling—which one cannot forget—of propulsion by an engine, and an engine that is working hard.

¶ In the six cylinder model AA engine, the power strokes are overlapping, resolving into a steady pressure entirely overcoming vibration.

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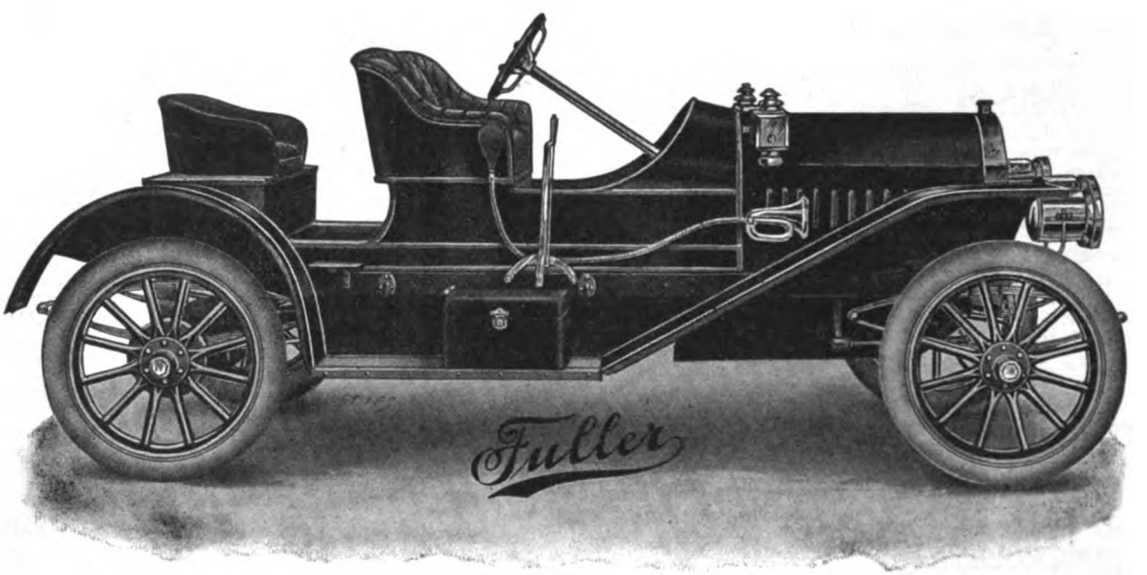
# $1,065 is the Selling Price

of this gentlemen's driving car, the

## Fuller "30" Roadster

with long stroke bloc motor, full elliptic springs and other advanced features.

¶ The FULLER line includes two and four cylinder models, pleasure and commercial, solid and pneumatic, from $825 to $1,165.




FULLER BUGGY COMPANY, Jackson, Mich.

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CONNECTICUT

# Shock Absorber

Examine these working drawings of the Connecticut. Note the remarkable simplicity and efficiency of its design.

Shape of cam is such that absorber does not exert a braking effect. Springs are not brought into action until there is an excessive movement of car body either up or down—then cam rides on springs, exerting braking effect and holding body of car where it belongs.

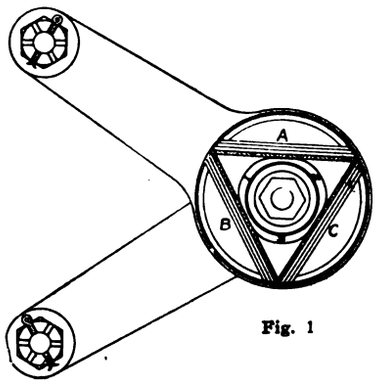


Fig. 1

Nearly all shock absorbers now in general use have the serious objection of retarding the spring action during the normal movement of the car, which is not desirable, as it causes the car to ride hard over a comparatively smooth road. It is true that it breaks the force of the rebound when passing over rough roads, and thus apparently accomplishes its purpose, but at the expense of a comfortable riding car.

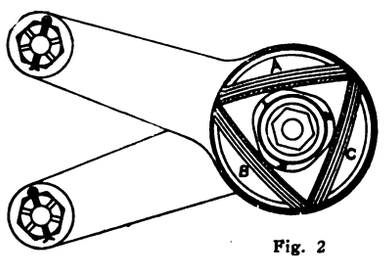


Fig. 2

The Connecticut not only absorbs and eliminates the excessive movement of car over rough roads, but allows full flexibility of springs when on smooth roads. The ordinary shock absorber depending upon friction for braking effect is bound to wear and lose its efficiency. This fault is usually provided for by means of adjustments every week or two. The Connecticut **requires NO adjustments after once fitted to your car.**

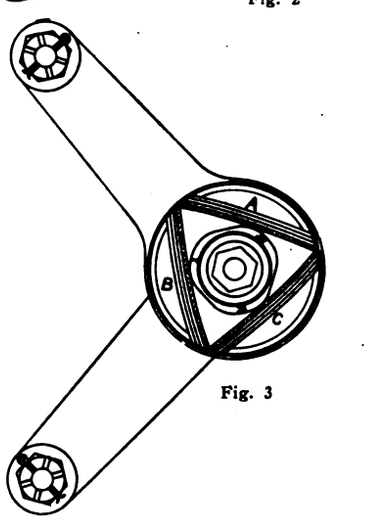
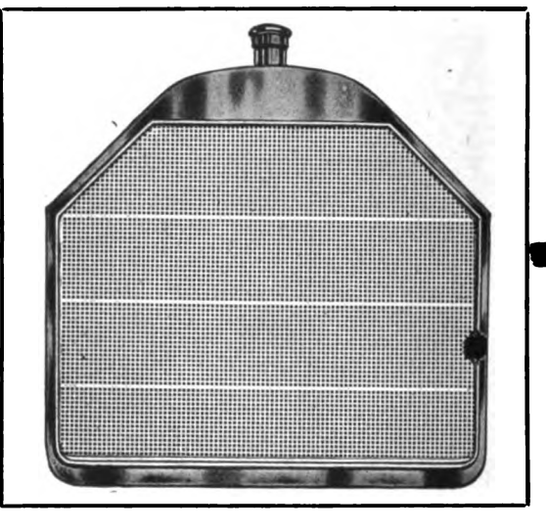


Fig. 3

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# PERFORMANCE THE REAL PROOF

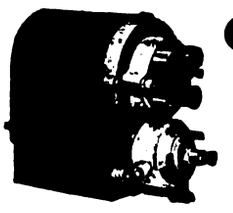
The many recent victories of the

# Splitdorf Magneto

only serve to bring out more clearly its great value as an Ignition device.

Take a single case—that of the Glidden Tour, for instance.

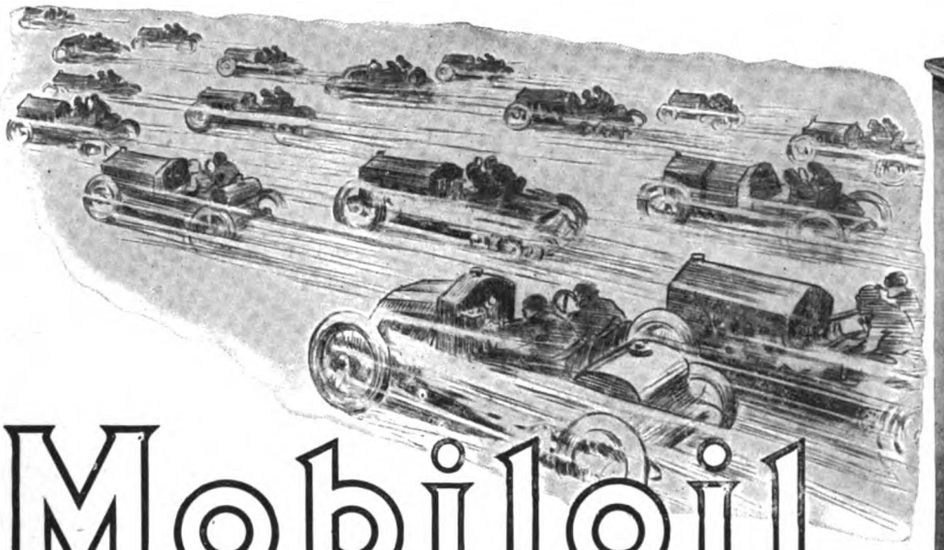
Words fail to describe the hardships and difficulties encountered in this run, and when you consider that four out of the five who finished in the Chicago Division, including the winning Moline, were SPLITDORF equipped and had Absolutely Perfect Ignition, you will understand why the SPLITDORF is so popular among motorists.

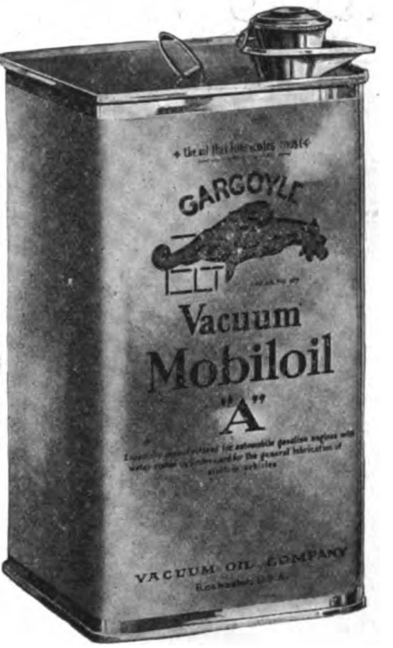


**C. F. SPLITDORF**
**Walton Ave. and 138th St.**
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**New York**


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# THE REAL POWER BEHIND THE CAR



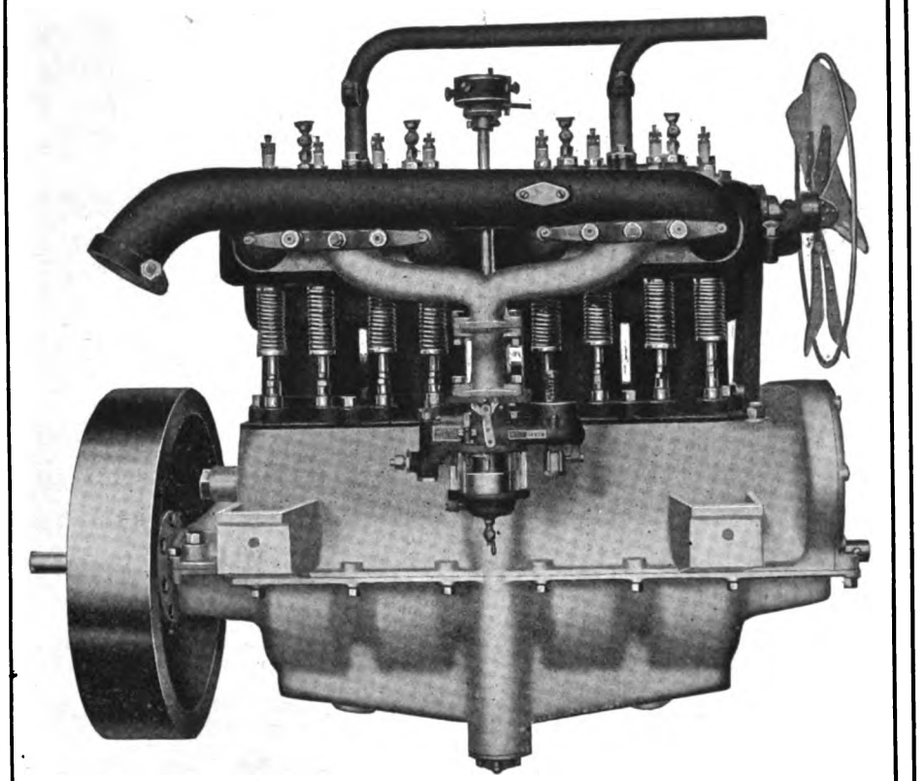



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If you want to improve the power plant in your car without materially increasing the cost it will pay you to investigate the merits of the Parker Motor.

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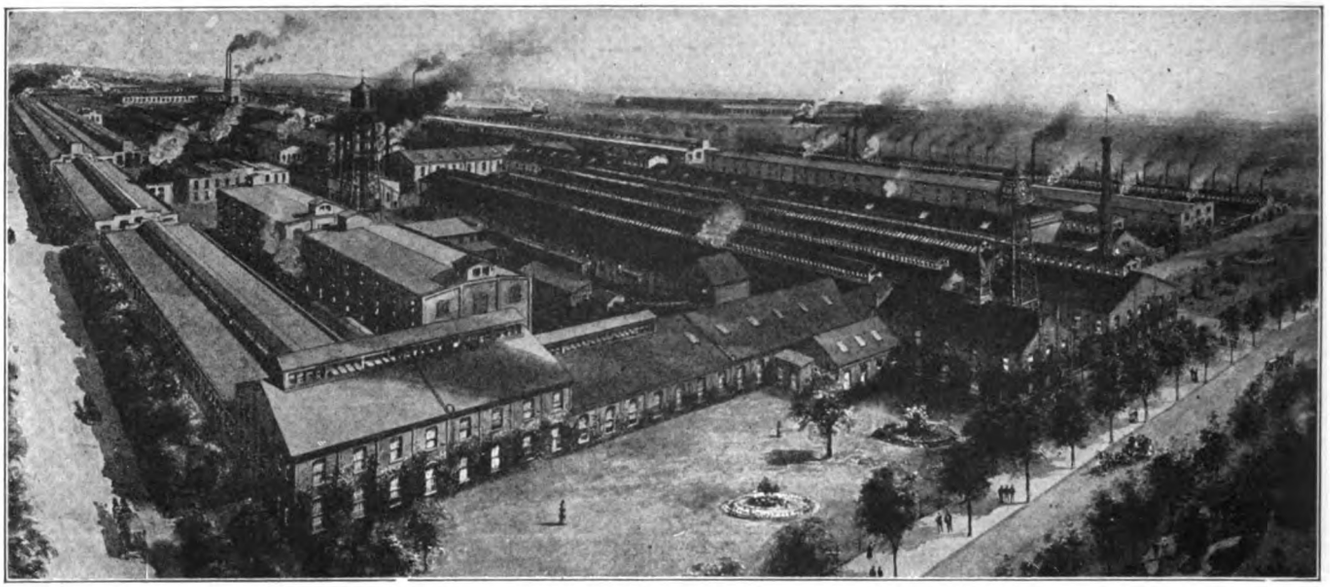
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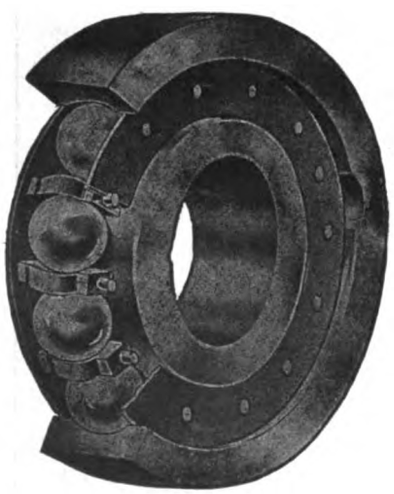


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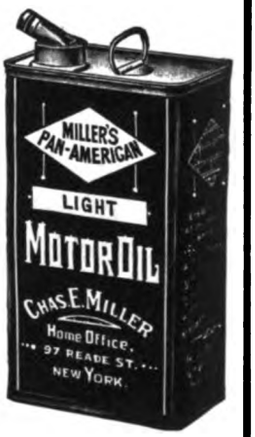
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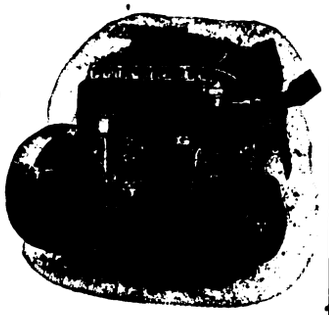
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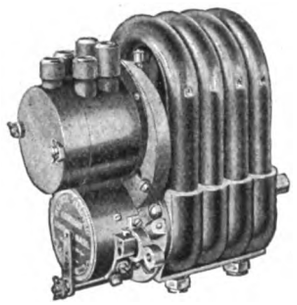
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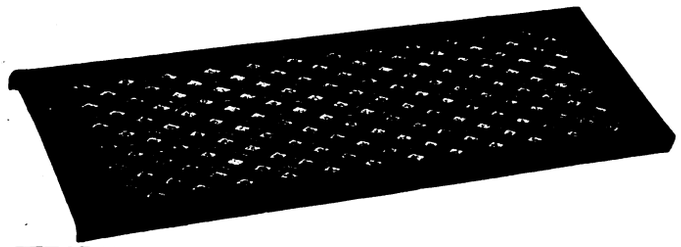
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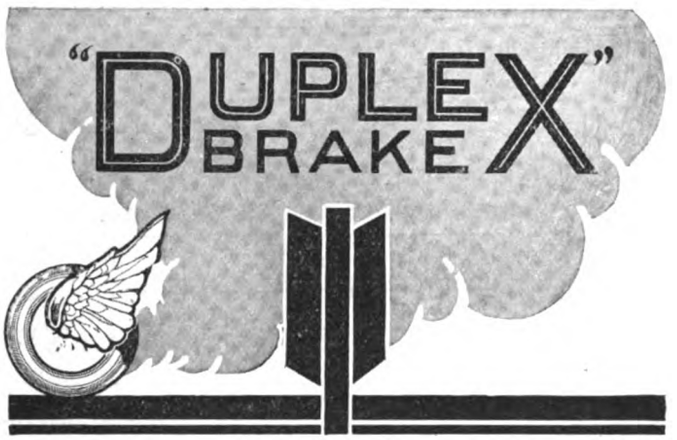
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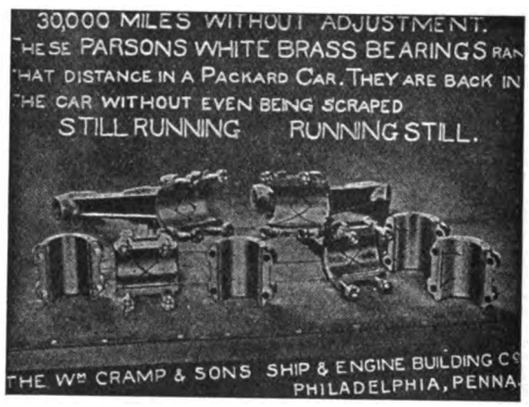
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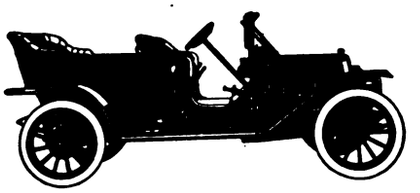
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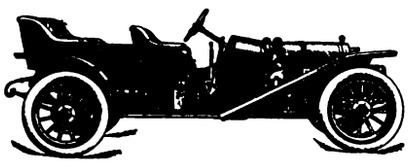
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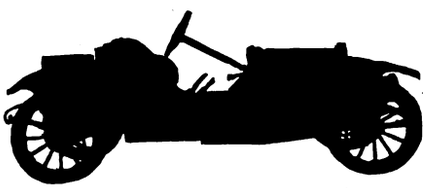
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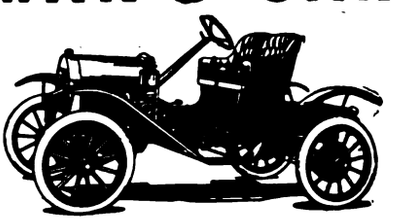
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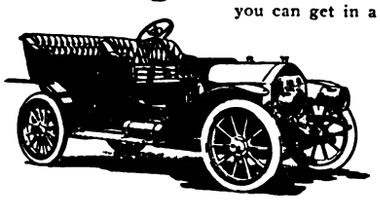
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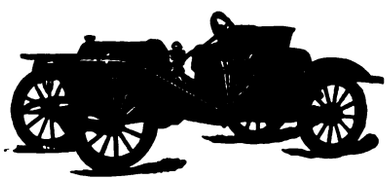
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## Real Radiators

made of individual square tubes so much imitated in appearance, only.

## FEDDERS RADIATORS

are just what they appear to be—genuine square tubes. Furnished with tubes "staggered" or Mercedes finish.

You See the Fedders on the Finest Cars

**FEDDERS MANUFACTURING WORKS, Buffalo, N. Y.**




## A Real Battery AT A REAL BARGAIN

We have on hand a number of 6 v. 60 amp. dry type storage batteries, built for us by one of the best known manufacturers. These batteries were built to sell at $26.00 and are worth the money, but as we have accidentally become overstocked, we offer them while they last at $12.50.

No better battery is built or sold at any price.

**EXCELSIOR SUPPLY CO.** (*Estab. 1870*) Randolph St. Bridge CHICAGO, ILL.


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# It Stands to Reason That

## *The BEST Car for the Purchaser, or The BEST Car for the Dealer is*

# The Car That Made the BEST Record

## In the 1910 Glidden Tour

### *For the Purchaser*

**Why!** In buying a car you demand a demonstration to see how it runs; how it rides; how it handles and above all ***what kind of service it will give. BUT—***

Any new car usually runs smooth—"any new broom usually sweeps clean." What you want to know is:

***Will it give lasting service; efficient service; dependable service?***

You can't determine this from an hour or two on a boulevard. It takes a test such as the recent Glidden Tour, (where every single bolt was subjected to the most ***drastic*** abuse), to ***prove*** the things you ***ought to know BEFORE you buy.***

The 1911 Moline stood this rigorous demonstration ***better than any car*** entered. It made the ***BEST RECORD*** of the twenty-six cars competing and it had 60 H. P., 6-cylinder competitors.

It carried not a single repair part—it needed none. Official seals on tool bags were never removed.

Briefly, that's why it is the best car for you.




### *For the Dealer*

**Because:** If you are a dealer what better argument can you show a prospective buyer that the car you are trying to sell him will ***"stand up"*** through thick and thin—rough or smooth—give him the maximum amount of ***real dependable*** service, than the performance of the 1911 Moline in the recent Glidden Tour?

This was a ***demonstration worth while***—a test that ***"tested"*** every identical part of the car in the ***severest*** manner possible, a performance which has never been equaled.

It ***proved*** the Moline is a car of exceptional construction, efficiency—a car that is not only efficient in some one feature, but in ***every*** feature—a car that when sold will cause you no trouble, but instead bring you ***more sales.***

It won the Chicago Trophy with 73 points less penalization than the winner of the Glidden Trophy, under same identical rules.

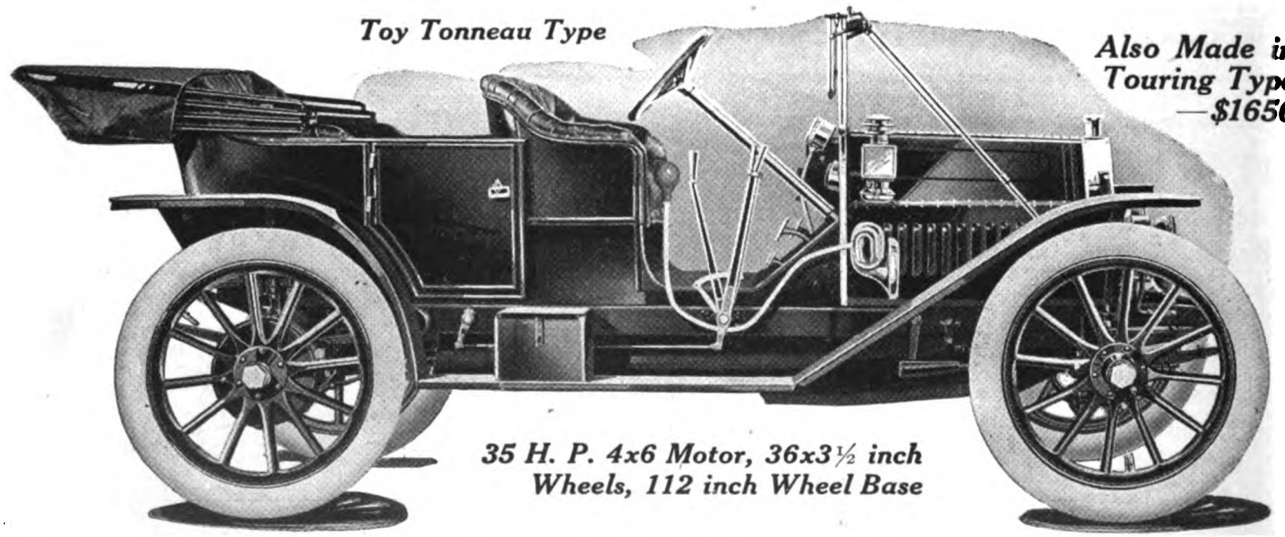
We have some excellent territory open—write for it before some one gets in ahead of you—it won't last long.

***Write for Booklet 61, "Story of the Glidden Tour" and read how it won over every car in the entire tour.***

# 1911 Moline $1600

*Toy Tonneau Type*

*Also Made in Touring Type —$1650*



*35 H. P. 4x6 Motor, 36x3½ inch Wheels, 112 inch Wheel Base*

**Moline Automobile Co.,** Licensed Under Selden Patent **61 Root St., East Moline, Ill.**

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The "30" Shaft Drive-Four Cylinder-Price $3500
The "48" Shaft Drive-Six Cylinder-Price $4800

High Tension Dual Ignition System

Standard equipment includes top and demountable rims. A wide range of the latest body styles, either with or without front doors, can be supplied. Touring, Baby Tonneau, Runabout Torpedo, Limousine and Landaulet Finished in any color scheme desired

THE BEST BUILT CAR Locomobile IN AMERICA

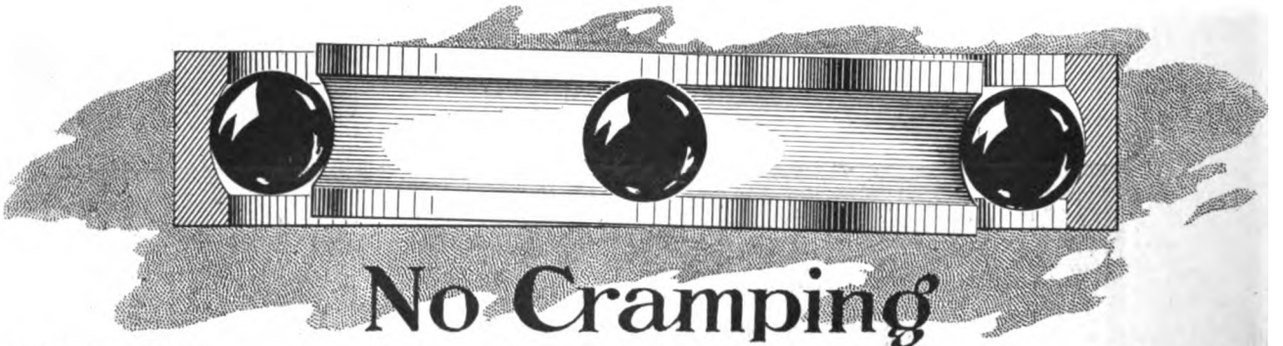
The Locomobile Co. of America

New York Bridgeport, Conn. Boston
Philadelphia San Francisco Chicago

THE BEST BUILT CAR Locomobile IN AMERICA

LICENSED UNDER THE SELDEN PATENT


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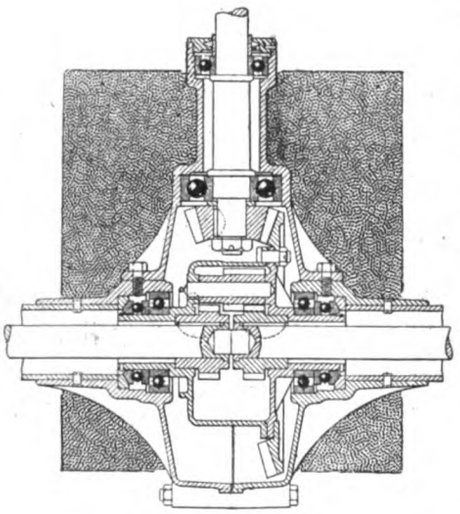
# No Cramping with Hess-Bright Ball Bearings

Many advantages result from the fact that the patented method of assembling HESS-BRIGHT Ball Bearings permits the balls to be fitted more loosely than is safe with other methods of assembling.

No amount of wear in a HESS-BRIGHT bearing can cause the balls to drop out, or to hammer themselves against the edges of transverse slots—there are no slots there.

For this reason, while the balls and races are microscopically accurate, every HESS-BRIGHT bearing is given a slight lateral play between the inner and outer races. Owing to this play, the bearing will run freely even if distortion or some other cause produces a slight disalignment of the shafts, or of the bearings on a single shaft.

Owing to the nature of an automobile's service, a shock or twist is very liable at some time or other to distort the gear case or the rear axle, or to spring the shafts. Even if this does not happen, there may be slight errors in the original shop work. If your car has HESS-BRIGHT Ball Bearings you may be sure that such deviations from mechanical truth will not seriously affect the life of the bearings.



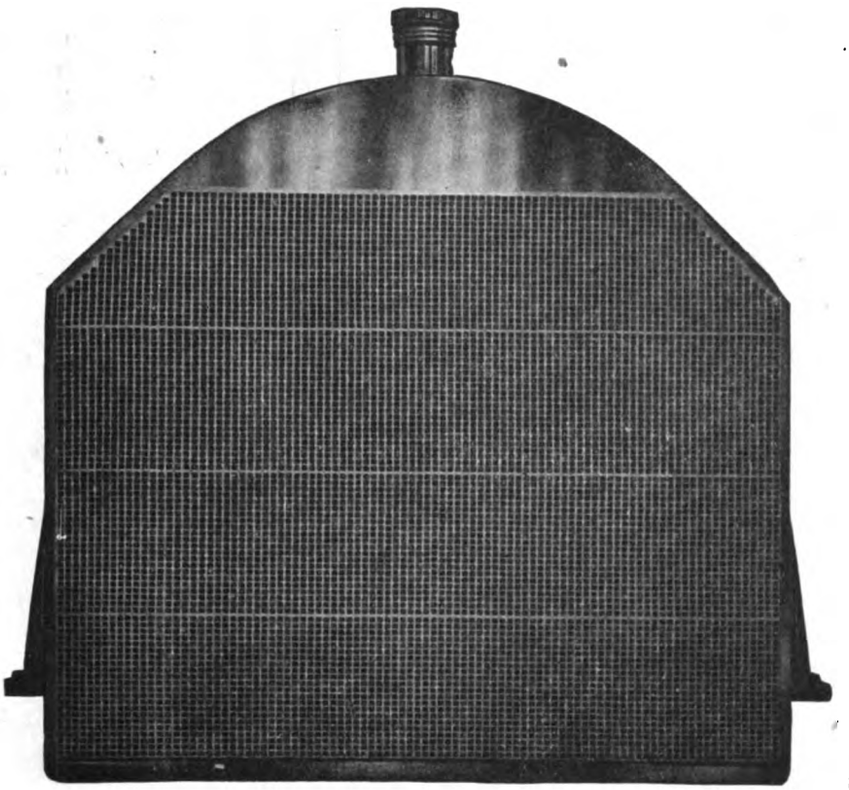
Floating Rear Axle Fitted With HESS-BRIGHT Ball Bearings

**See That HESS-BRIGHTS Are In Your Next Car**

THE HESS-BRIGHT MANUFACTURING CO.

2109 Fairmount Avenue
PHILADELPHIA, PA.


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## Does a Penny Wise and Pound Foolish Policy Pay?

¶ Radiator troubles on the road with resultant seized pistons and probably damaged motors are not charged up against the radiator manufacturer.

¶ Of course not! The thoughts of the owner, especially if it be a dark night and miles from nowhere, fix responsibility squarely where it belongs — on the car maker whose judgment was depended upon — and found wanting.

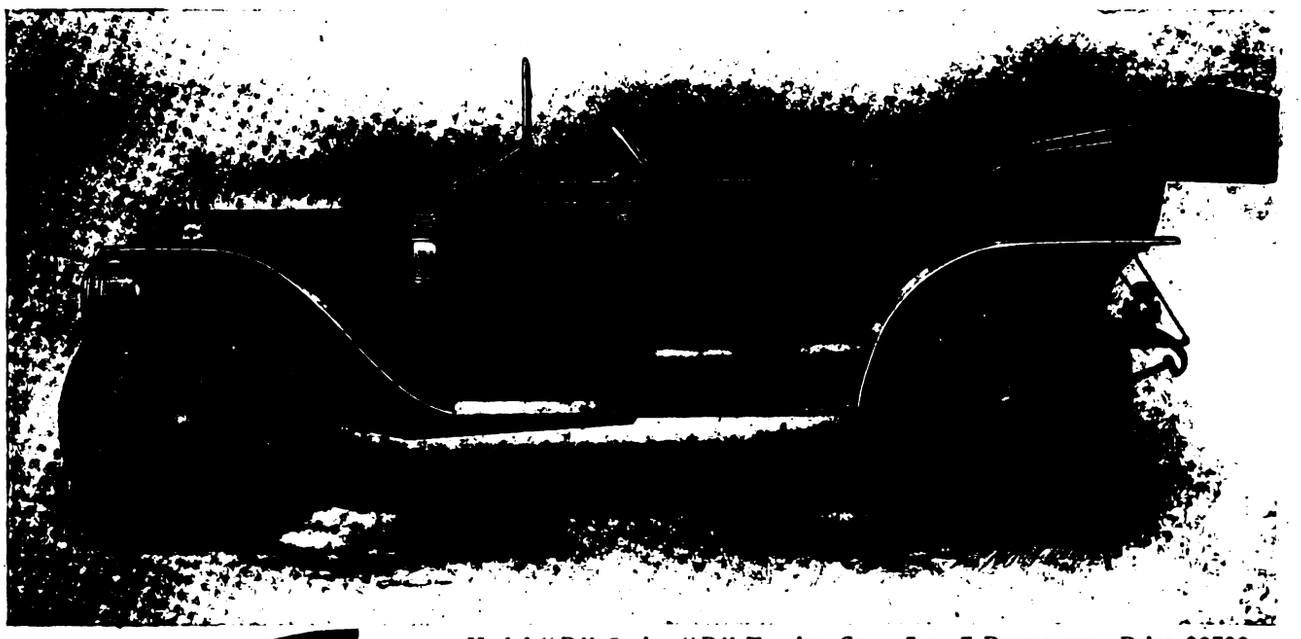
¶ Car reputation is based on the performance of the car in the hands of the user.

¶ MAYO RADIATORS have done their part in making the splendid reputations of America's best known cars.

¶ Can any maker afford to jeopardize his reputation and nullify his good work in other directions for the sake of a few dollars "saved" in the purchasing department?

¶ Answer it yourself.

**Mayo Radiator Co.,** New Haven Connecticut



Model "R" Series "B" Touring Car. 5 or 7 Passenger. Price $3500.

Knox

**1911 SERIES**

**Up-to-Date Types and Construction**

Write for advance information

**KNOX AUTOMOBILE COMPANY,** Licensed under Selden patent. **Springfield, Mass.**


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# THE THREE GREAT LINKS

# Our Product
# Our Factories Our Name

OUR EQUIPMENT IS VERY COMPLETE FOR THE MANUFACTURE OF:

| | |
|---|---|
| Metal Bodies | Motor Pans |
| Fenders | Tanks |
| Fender Irons | Dashes |
| Hoods | Tool and Battery Boxes |

Sheet Metal Parts and Forgings

TWO LARGE PLANTS ENTIRELY SEPARATE, GIVING PROTECTION IN CASE OF FIRE. CAPACITY FOR PARTS FOR 5000 CARS PER MONTH.

We Enamel in Colors, Too

## HAYES MANUFACTURING CO.
DETROIT, MICHIGAN


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# The Equipment of America's Best Cars

THE following automobile manufacturers permit us to announce that they are using

# "Firestone"

## QUICK-DETACHABLE DEMOUNTABLE RIMS

The Acme Motor Car Co.
American Locomotive Co.
The Bartholomew Co.
The Berkshire Car Co.
B. C. K. Motor Car Co.
Chadwick Engineering Works
Chalmers Motor Co.
Coates-Goshen Mfg. Co.
Cole Motor Car Co.
The Corbin Motor Vehicle Corporation
The Croxton-Keeton Motor Co.
Fal Motor Co.
Inter-State Automobile Co.
Marion Motor Car Co.
Matheson Automobile Co.
Mercer Automobile Co.
Moline Automobile Co.
Moon Motor Car Co.
Packard Motor Car Co.
Mora Company
National Motor Vehicle Co.
Owen Motor Car Co.
Palmer & Singer Mfg. Co.
The Pope Mfg. Co.
Premier Motor Mfg. Co.
Pullman Motor Car Co.
Selden Motor Vehicle Co.
Simplex Motor Car Co.
The Speedwell Motor Car Co.
Springfield Motor Car Co.
Staver Carriage Co.
Studebaker Automobile Co.
The Stuyvesant Motor Car Co.
E. R. Thomas Motor Co.
Velie Motor Vehicle Co.

—and most of the other progressive manufacturers realize the great advantages of this equipment and are large users of the up-to-date Firestone rims.

Firestone Quick-Detachable Demountable Rims are growing in popular favor faster than any other demountable rims. Up-to-date cars demand up-to-date demountable rim equipment.

No lugs or staybolts to bother with—any number of tire changes possible per trip—easiest to operate and safest to use.

## THE FIRESTONE TIRE & RUBBER COMPANY

"America's Largest Exclusive Tire Makers"

Akron, Ohio

Branches, Agencies and Dealers Everywhere

# "Firestone" Quick-Detachable Demountable Rims


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# The Dayton Motor Car Co.

**Dayton, Ohio**

place the largest individual order ever given for demountable rims. All 1911 Stoddard-Dayton and Courier cars will be equipped with

# THE STANDARD UNIVERSAL RIM

**MANUFACTURED BY**

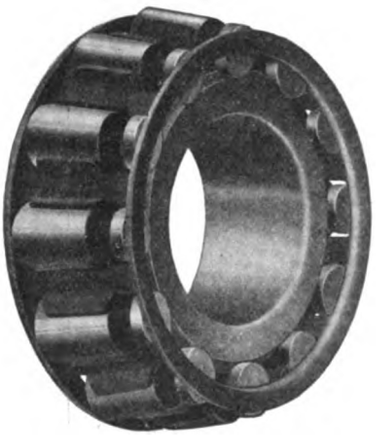
## The United Rim Company

**Akron, Ohio**

The wholesale adoption of the Standard Universal Rim by representative automobile manufacturers is the best argument in favor of its practical and desirable demountable and quick detachable features.

# FITS ALL TIRES


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# Timken Roller Bearings

While it is both right and wise to buy as cheaply as possible, of course, providing you get value commensurate with the price you pay, and please remember that values are made by quality and price, it is always well to discriminate against any article that offers too much quality at too little a price, and insist upon values only.

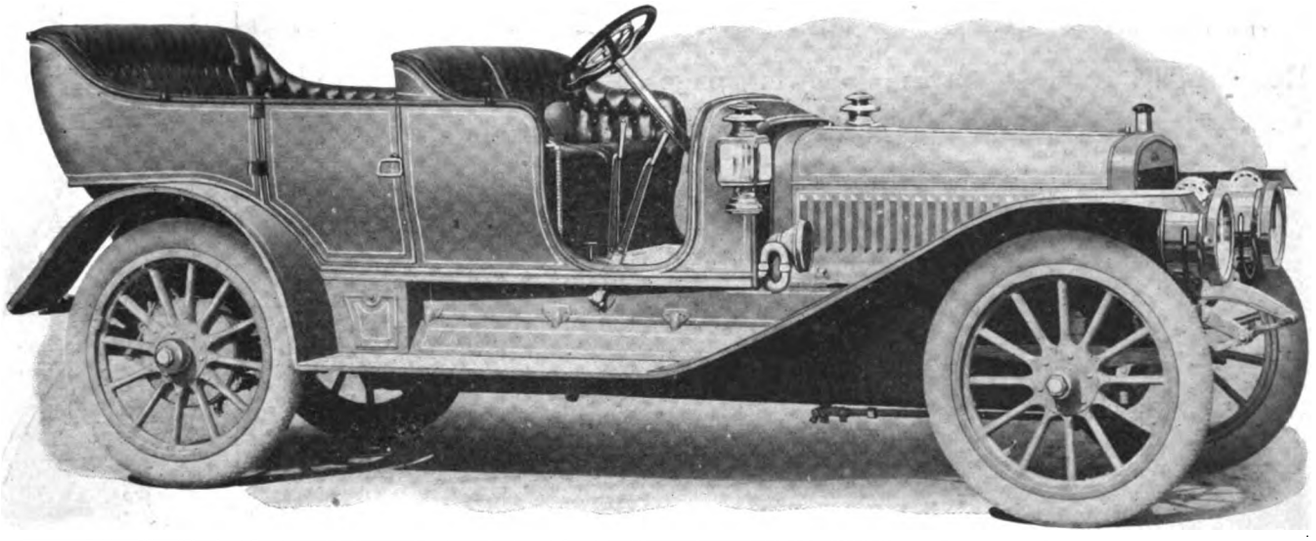
THE TIMKEN ROLLER BEARING CO.
Canton, Ohio

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E-M-F "30"
Flanders "20"
AUTOMOBILES
are guaranteed
for one year

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# WINTON SIX



## Alters the Whole Question

"We had our first experience of the pleasure of owning an automobile with a..... Thirty, but this new proposition of six-cylinders alters the whole question. It is so finished, so restful, so satisfying that it appeals to me through and through. I do indeed thank you for making so complete a car."

This letter from a lady in California tells a big story briefly.

The Six *does* alter the whole automobile question.

It accomplishes previously impossible results in quietness, comfort, flexibility, hill-climbing, and economy.

Money spent lavishly to perfect a car of four-cylinders can only add to the price you pay. It can never add that finishing touch of continuous power, which is found only in the Six.

The Winton Six is high-grade in design, materials, workmanship, and classy finish.

It is superior in the beauty of its performance.

And supreme in low cost of upkeep. Its world's record of 77 cents per 1000 miles is the direct result of its six-cylinders, its continuous power, and its beautiful operation.

The Winton Six has the only self-cranking motor. Air does it. No clock springs: no complicated mechanism. Just one single moving part.

The 1911 48 H.P. Winton Six sells at $3000. To find its value compare it with cars that cost $4000 to $6000.

Our catalog tells a plain, forceful, easily-understood story. Send coupon for copy.

THE WINTON MOTOR CAR. COMPANY
Licensed under Selden patent.
CLEVELAND, U. S. A.

Branch Houses Broadway and 70th St, New York; Berkeley and Stanhope Sts., Boston; 246-248 No. Broad St., Philadelphia; 209 N. Liberty St., Baltimore; Baum and Beatty Sts., Pittsburg; 738-740 Woodward Ave., Detroit; Michigan Ave. and 13th St., Chicago; 16-22 Eighth St. N., Minneapolis; 1000 Pike St., Seattle; 300 Van Ness Ave., San Francisco.

THE WINTON MOTOR CAR. COMPANY
426 Berea Road, Cleveland, Ohio
Please send Winton Six literature to

_____

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# THE REGAL LINE

**The Regal LINE is shown on the following pages. Note its strength and completeness. Then act.**




**FACTORY OF THE REGAL MOTOR CAR CO., DETROIT, MICHIGAN**

Licensed under Selden patent.

## FACTORY BRANCHES:

A complete stock of repair parts for all Regal models is carried at all times at these factory branches. Another move in the direction of "the best service for Regal owners."

**LINCOLN, NEB.**
Regal Auto Sales Co.,
1327 P St.

**BUFFALO, N. Y.**
Buffalo Regal Auto Co.,
728 Main St.

**SAN FRANCISCO, CAL.**
Regal Motor Sales Co.,
460 Golden Gate Ave.

**INDIANAPOLIS, IND.**
Regal Auto Sales Co.,
219 North Delaware St.

**DENVER, COLO.**
Denver Regal Auto Co.,
1236 Broadway.

**DETROIT, MICH.**
Regal Motor Sales Co.,
758 Woodward Ave.

**PHILADELPHIA, PA.**
Philadelphia Regal Auto Co.,
330 North Broad St.

**MINNEAPOLIS, MINN.**
Minneapolis Regal Auto Co.
418-420 South Third St.

**OKLAHOMA CITY, OKLA.**
Regal Motor Sales Co.,
619 South Main St.

**ATLANTA, GA.**
Anderson-Riggs Co.,
1030 Candler Bldg.

**TOLEDO, OHIO**
Regal Motor Sales Co.,
1011 Jefferson Ave.

**NEW YORK, N. Y.**
Regal-Detroit Auto Co.,
1720 Broadway.

**BOSTON, MASS.**
Regal Motor Car Co.
11-12 Park Square.

**KANSAS CITY, MO.**
Kansas City Regal Auto Co.
1524 Grand Ave.

**WICHITA, KAN.**
Wichita Regal Auto Co.,
118 North Emporia.

**CLEVELAND, OHIO**
Cleveland Regal Auto Co.

**CHICAGO, ILL.**
Chicago Regal Auto Co.,
1520 Michigan Ave.

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# THE REGAL LINE

## The Regal "20"—a remarkable car at a remarkable price—fore door and open styles

You will see at once that the Regal "20" strikes a new note in automobile building. It has the class, distinction and style that will make it one of the most striking successes of the year. Note the UNDERSLUNG frame that brings the body close to the ground—gives the rakish, swift, smart appearance that every driver of a roadster covets.

A study of the specifications will show that this model is in size, power and efficiency a car of masterful design. It carries two passengers anywhere with ease. Has power enough and to spare. Is long enough and heavy enough so that it "sticks" to the road. While it will be seized upon at once by discriminating city drivers because of its unusually distinguished appearance and exclusive lines, yet its strength of construction and its road efficiency make it suitable for road service anywhere and everywhere.

The 5000 Regal "Twenties" building for 1911 will go fast.

The value given in this car would be impossible were it not for our large capacity and economical factory management. It is the Regal System to spend any amount necessary on fine machinery, fine materials and fine workmanship, but we save for Regal buyers the money that has ordinarily gone into reckless salaries and extravagant overhead expense.

The Regal "Twenty" outclasses in style, power and quality any and every low priced machine built. It could not be manufactured under any other system for within several hundred dollars of our price.

### Regal "20" Facts

MOTOR—22.5 horsepower. Cylinders cast enbloc. Bore 3¼ inch. Stroke 4½ inch.

COOLING—Water. Our own patented thermo-syphon. Large radiator, highest cooling efficiency.

LUBRICATION—Constant level splash system. Oil ducts keep bearings and pistons well lubricated at all times.

IGNITION—Dual system, High Tension Magneto and dry cells.

CLUTCH—Cone, leather faced with adjustable spring inserts, allowing easy engagement.

TRANSMISSION—Sliding gear, selective type, three speeds forward and reverse. Transmission incorporated in rear axle, the ideal construction for medium weight cars.

AXLES—Rear, semi-floating type. Front, I beam construction. Hyatt bearings used throughout.

BRAKES—Two internal expanding, two external contracting, operating on rear wheel drums. Largest braking surface of any 20 horsepower car.

WHEEL BASE—100 inches.

TIRES—32 x 3 inch. Quick Detachable Rims.

TREAD—56 inch and 60 inch.

SPRINGS—Semi-elliptic, front; full platform rear springs. All springs equipped with grease cups.

FRAME—Pressed Steel, full underslung.

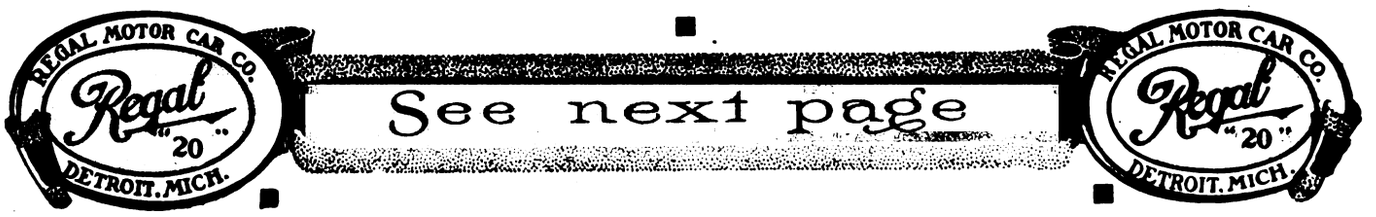
CLEARANCE—Regal "20" has a road clearance of 10 inches.

EQUIPMENT—One pair side oil lamps, one tail lamp, horn, tool kit and complete tire repair kit.

RACY ROADSTER MODEL—Two-passenger roadster. Large gasoline tank back of seats.

WEIGHT OF CAR—1,250 lbs.

PRICE—$900 with standard equipment, including magneto.




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# THE REGAL LINE

## The Regal "30"—fore door and open styles

To talk about the merits of the Regal "30" is to "gild refined gold." The car that holds the world's record for endurance and reliability needs no introduction. For three years it has held its position as leader among cars selling for less than $1600.

Its amazing vitality has astonished the motoring world. The secret of its sturdiness is its high class, thorough construction—its correct engineering.

Combine correct designing with highest grade materials and workmanship and the inevitable result is satisfactory service.

The Regal System means improvements added as experience or advances in engineering knowledge suggest. Therefore the Regal of today is even better than the Regal of yesterday.

The power of the motor has been increased, and there have been other changes in details, all of which mean greater refinement—added simplicity and efficiency.

Those who desire a car of high efficiency at a medium price—the only car at its price that has four years' success back of it—will find this model possessing the features that challenge and hold the attention of careful buyers.

### Regal "30" Facts

MOTOR—30 horsepower. Cylinders cast in pairs.

COOLING—Water. Our own patented thermo-syphon. Large radiator, highest cooling efficiency.

LUBRICATION—Constant level splash system. Oil ducts keep bearings and pistons well lubricated at all times.

IGNITION—Dual system. High Tension Magneto and dry cells.

CLUTCH—Cone-leather faced with adjustable spring inserts, allowing easy engagement.

TRANSMISSION—Sliding gear, selective type, three speeds forward and reverse. Transmission incorporated in rear axle, the ideal construction for medium weight cars.

AXLES—Rear, semi-floating type. Front, I beam construction. Hyatt bearings used throughout.

BRAKES—Two internal expanding and two external contracting, operating on brake drums on rear wheels. Extra large brake drums provide positive set of brakes.

WHEEL BASE—110 inches.

TIRES—32 x 3½ inch. Quick Detachable Rims.

TREAD—56 and 60 inch.

SPRINGS—Semi-elliptic, front; full scroll elliptic, rear. All springs equipped with grease cups.

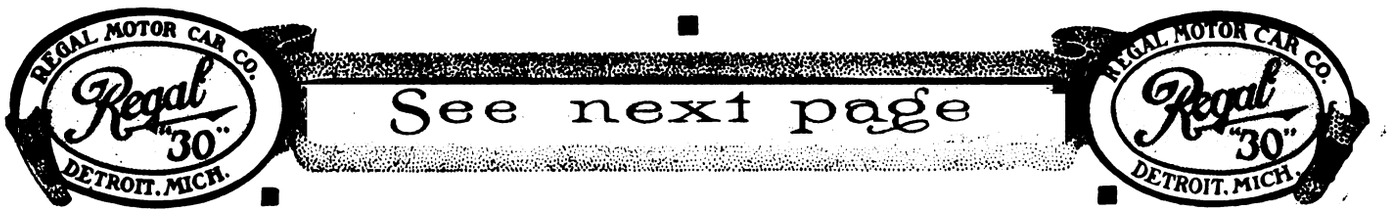
EQUIPMENT—One pair side oil lamps, one tail lamp, horn, tool kit and complete tire repair kit, two extra large gas lamps and generator.

MODELS—

| | |
|---|---|
| Two, three or four- pass. Runabout | $1,250 |
| Four-passenger Demi-Tonneau | 1,250 |
| Five-passenger Touring Car | 1,250 |
| Three-passenger Coupe | 1,650 |
| Seven-passenger Limousine | 1,850 |

WEIGHT—Touring Car Model, 2,000 lbs.

All cars are listed including Magnetos.




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# THE REGAL LINE

## The Regal "40"—fore door and open styles

Most people who look at the size and power of the Regal "40" are astonished at its price. With other cars not having half its style, size or capacity selling for eight hundred dollars to a thousand more, it is perfectly natural that you should look somewhere for a sacrifice of quality.

But examine or scrutinize as deeply and keenly as you will, you won't find anything missing. The motor is there—bore 4½ inch, stroke 5 inch. The speed is there. The engine operates almost without noise—it is flexible to an unusual degree—throttles down from sixty to four miles an hour.

And if you look farther into the details—the frame, the axles, transmission, clutch, brakes, ignition, tires (34 x 4), the upholstering, finish or equipment—you will find that they are exactly the same and in some cases better in quality than you find on cars selling for twice the price.

The wheel base is 123 inches.

It is a big car in every sense—high class in everything except its price. The Regal System makes the quality possible at the price. Look into it.

### Regal "40" Facts

MOTOR—40 horsepower; cylinders cast in pairs. Bore 4½ inch. Stroke 5 inch.

COOLING—Water. Our own patented thermo-syphon. Large radiator, highest cooling efficiency.

LUBRICATION—Constant level splash system. Oil ducts keep bearings and pistons well lubricated at all times.

IGNITION—Dual system. High Tension Magneto and dry cells.

CLUTCH—Cone, leather faced with adjustable spring inserts, allowing easy engagement.

TRANSMISSION—Sliding gear, selective type, three speeds forward and reverse. Transmission incorporated in rear axle, the ideal construction for medium weight cars.

AXLES—Live Rear Axle; Front, I beam construction. Hyatt roller bearings used throughout.

BRAKES—Four in number; two internal expanding, two external contracting, all operating on extra large drums on the rear wheels.

WHEEL BASE—123 inches.

TIRES—34 x 4 inch. Quick Detachable Rims.

TREAD—56 inch and 60 inch.

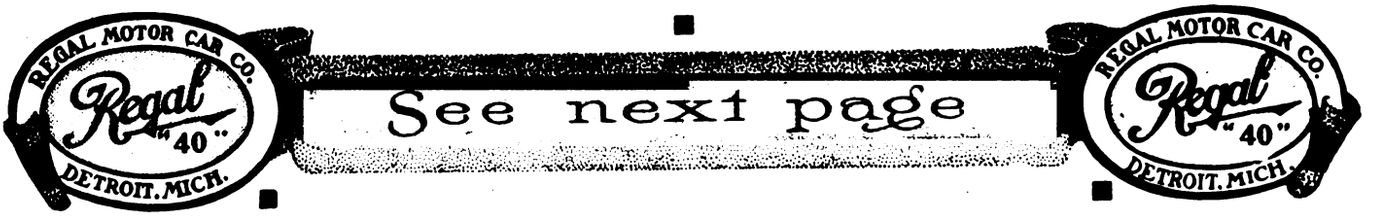
SPRINGS—Semi-elliptic, front; full scroll elliptic, rear. Especial attention is given to spring construction to provide for greatest comfort in riding.

EQUIPMENT—Two large gas lamps, three oil lamps, gas generator, horn, tire repair kit, full set of tools.

TOURING CAR MODEL—Seven-passenger; two side seats in tonneau removable.

WEIGHT OF CAR—2,500 lbs.

PRICE—$1,750 with standard equipment, which includes magneto.




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"30" Runabout—$1250




"30" Demi-Tonneau




"30" Coupe—$1650




"30" Limousine

# THE REGAL LINE

**The Regal Line shown on the preceding pages is strong in values — unusually complete — and offers exceptional opportunities to the live business builder.**

**Concentration of effort—concentration of advertising — the resultant elimination of waste in both directions, means more sales of Regal cars at lower cost of selling.**

## DEALERS

As you are in business to stay you will find it mighty profitable to tie up to the Regal Line. If you have looked over the preceding pages carefully and studied the specifications and prices of our various models, you must have inevitably come to the conclusion that the Regal Line is going to look strikingly big in the eyes of prospective automobile buyers. We are giving bigger value than ever in Regal cars and our line includes the popular types. The Regal reputation for reliability and endurance, coupled to the Regal popular priced line, means that Regal dealers for 1911 are going to get a large share of patronage.

If you are interested, clip the coupon below, fill in and mail to us for complete dealers' proposition, or new Catalog. Don't delay. Act NOW.

## Regal Motor Car Company




REGAL MOTOR CAR CO., Detroit, Michigan.

Gentlemen—Please send me your latest announcement. I am interested in Dealers' proposition (If interested mark X here) ..... I want your latest catalogue.

Name .....

Address .....

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# Victory of Chalmers "30" in Glidden Tour a Victory for Public as well as for the car

THE contest board of the American Automobile Association has declared the Chalmers "30" car, entry No. 5, driven by William Bolger, winner of 1910 Glidden Tour, and has awarded the Glidden Trophy to the Chalmers Motor Company.

Think what this means. The Glidden Tour—the most famous and most strenuous reliability contest for motor cars in the world—won by a stock touring car—a duplicate of which you can buy for $1500.

We know of no stronger proofs that could be given that it is now possible to buy a real car at a medium price than the Chalmers "30" has given in the past two years—the Glidden victory being the crowning triumph.

All that any car can do this car has done. In fact, it has proved conclusively that it can do more than most cars, for it has succeeded where others have failed.

In every Glidden Tour some car has won pre-eminence, but always before a car costing $4000 or more has been the winner.

That a car costing only $1500, the lowest priced car in the tour with only one exception, should win the most trying automobile contest ever held is more than a sensation—it is a revolution—and the effects of it will be left in the automobile business for many a day.

This tour is not only a victory for the Chalmers Motor Company, it is a victory for the public—the public, which is always demanding of the manufacturer good cars at right prices—cars of an unusual dollar for dollar value.

## World's Longest, Hardest Tour

Of all the Glidden Tours yet held that of 1910 was the longest and by far the hardest. None except those who made the trip will ever know of the many obstacles met and overcome in this 2,851 mile contest, which started at Cincinnati and went "by way of Dallas, Texas," through thirteen states to Chicago.

Dai Lewis, who has laid out the route for every Glidden Tour, says that no other could even compare in hardships with the 1910 Tour.

*The final outcome of the contest was predicted when the "30" held its perfect score for five terrific days after every other car on the tour had been penalized.*

Furthermore, the Chalmers "30" made a better showing in the final technical test than any of its rivals. In this important examination it was assessed only 75 points as against 84 for its nearest competitor.

The "30" was not penalized on any fundamental feature of construction, not on motor, or clutch, or transmission, or on the frame, or the wheels, or axles, or springs; only on minor things, such as body bolts, shackles, muffler, and fender irons.

It still had a brake good enough to stop it within the required fifty feet.

*The car which made this wonderful showing is absolutely a stock car in every respect—not even our competitors have questioned that. It is the same car you can buy in any Chalmers dealer's salesroom for* $1,500.

In winning the Glidden Tour the Chalmers "30" has only maintained a record it had already established, for this car has never been defeated in any important contest of speed and endurance by a car of its own power and price class. It has repeatedly defeated cars of much higher price and greater power in all kinds of contests.

Think of the Indiana Trophy Race, the Merrimac Valley Trophy, the Santa Monica Race, the Massapequa Trophy in the Vanderbilt Race, won by setting a new world's speed record; the showing at Atlanta, where it finished first and second in every event entered for a week, winning the Candler Trophy by doing 120 miles in 117 minutes; the Denver to Mexico City Trip; the gruelling test of 208 miles a day for 100 successive days; pathfinding for the 1910 Glidden Tour, and, finally, winning the tour. What other stock car in the world, at any price, has such a record as this?

The Chalmers "30" which won the Glidden Tour carried four passengers and baggage over every mile of the route.

It had power enough to pull through streams, through swamps and through sand.

It had speed enough to make every control on time; it has as much speed as any one can use.

And in addition to endurance and reliability you cannot buy more beauty either of line or finish than you get in a Chalmers "30."

No car, no matter what the price, affords more eye delight than the Chalmers.

What more do you want, then, in a car, than you can get in the Chalmers?

From the beginning we have been on the right track. First, in not trying to build too many cars, but in building a limited number just as well as they could possibly be built; second, in selling these cars at medium prices; third, in taking care of our owners just as well as we knew how after the cars had been sold.

*After all, automobiles are built for those who buy them; and Glidden Tours are conducted for the benefit of the very same people. The thousands who contemplate buying cars during the* 1911 *season have had nearly all the real big questions answered by the Glidden Tour—the questions of design, of materials, workmanship, endurance, reliability.*

The price you already know, so the question of appearance is about the only one left; as to that, the new 1911 models will be on exhibition at the local show rooms within a very short time. We invite you to examine them.

*If the lines, the color, the finish suit you, you can safely buy one, for, remember—it's a Chalmers—the car that won the most trying test to which automobiles were ever put—the Glidden Tour of* 1910. *Write for new catalog and name of nearest dealer.*

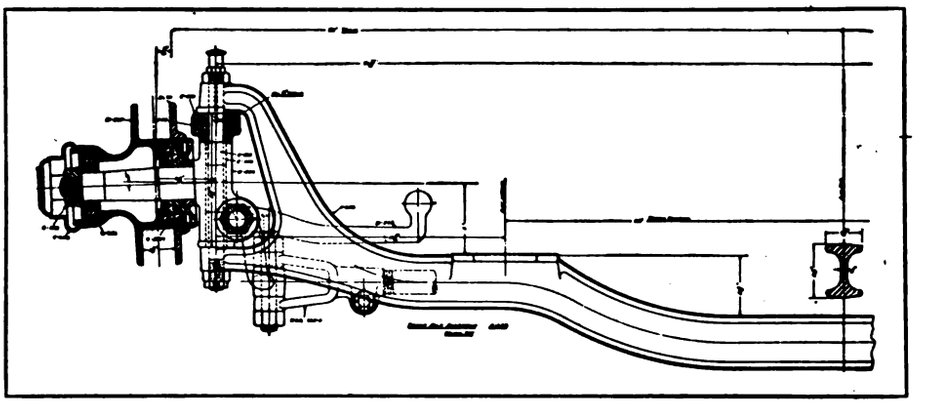
**Chalmers Motor Company Detroit, Michigan**

Licensed under Selden patent.

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# THE McCUE AXLES

HAVE you seen our one piece steel axle housing? It is unlike any other. It is made right, looks right and is right.



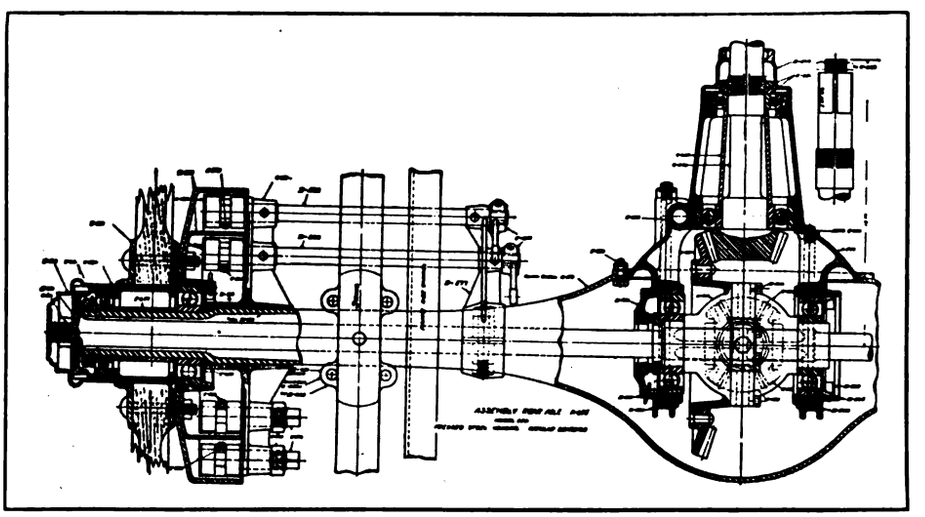
The McCue axles cost more than any others but they are worth more. Every little detail has been looked after from a car-builder's standpoint.

They have real brakes which are easily and quickly adjusted.

The drum bearing surfaces of the flanges are accurately machined. The flange bearing surfaces of the drums are likewise machined making a true running wheel possible, also permitting the use of various widths of spokes.

The pinion shaft and pinion gear are integral and are made of 3½ per cent. nickle steel.

The bearings are imported annulars and of sufficient sizes to carry the load for the weight of car for which the axles are intended with a factor of safety of ten.



These bearings have been tested out with 100 per cent. overload for 110,000 miles and were in good usable condition at the end of the test.

We have both Mercedes and Elliott types of front axles. Let us tell you all about them. Prints and catalogues upon application.

## THE McCUE COMPANY

**Hartford, Conn.**


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# Important Announcement

## REGARDING THE

# PIERCE-RACINE AUTOMOBILE

**Arrangements have been completed whereby the Case Company have taken over the entire automobile output of the Pierce Motor Company, and the car will hereafter be known as the Case car.**

It has been the intention of the Case Company for sometime past to put out a car under its own name, but some difficulty has been encountered in getting control of a car that was worthy to bear the Case name.

It is well known, both among our representatives and the tens of thousands of users of our machinery, that it is the settled policy of this house to put the name of Case on nothing except the highest-grade product, and in our decision to market an automobile this policy has been steadfastly adhered to.

We have investigated the market thoroughly, even to the extent of buying several makes of cars. In fact during the past few years we have purchased a large number of cars and put them into practical use in connection with our extensive business.

Hence our decision to contract for the entire output of the Pierce-Racine was based upon a thorough investigation of the market and a desire to put out a medium-priced car of established merit.

The Pierce Motor Company has been famous as manufacturers of high-efficiency engines for over a quarter of a century—a fact that has enabled them to build up an enviable reputation in the automobile field.

It is freely admitted by those best fitted to judge that no other car on the market, regardless of price, has a more satisfactory motor than has been true of the Pierce-Racine.

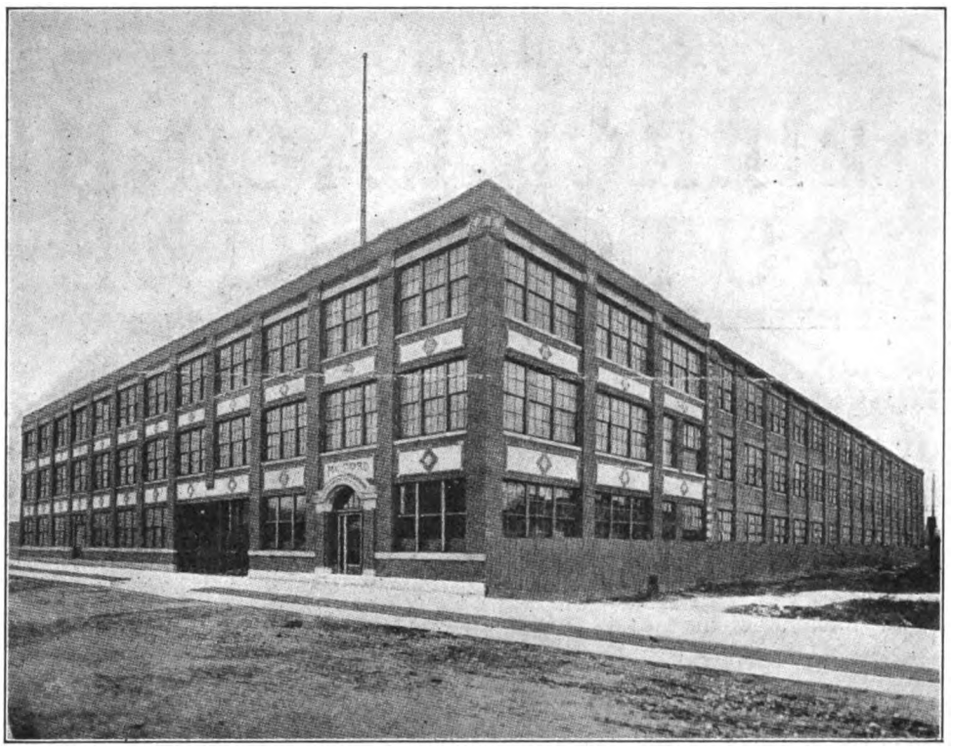
The balance of the car—body, wheels, equipment, etc.—has been strictly in keeping with the Pierce engine, and the car is regarded everywhere as being a superior product.

**In addition to our immense organization—scattered throughout the world—a limited number of strictly automobile agencies will be accommodated, as it is the purpose of this Company to very materially increase the former output of Pierce-Racine cars.**

## J. I. CASE THRESHING MACHINE COMPANY

**Racine, Wis.**

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WHEN the Society of Automobile Engineers visited this plant, during their recent Detroit session, we can safely say that to a man they were impressed with the plant and our methods.

Our production is not only large but of the highest excellence—the preponderance of McCord Products on American motor cars proves this.

# McCord Manufacturing Co.
DETROIT

Radiators Fans Lubricators Pumps
McKim Gaskets and other Specialties

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Completely Equipped. Nothing to Buy but License Tag and Fuel. Price, $4,000.



# "The 1911 Owen"

50-H. P. Motor (long Stroke)—42-inch Wheels—120-inch Wheel-base. Weight complete, 3400 lbs.

## Why Experienced Motorists Buy the "Owen"

The men who have been motorists for years—who can drive their own cars—whose experience enables them to figure out *practical* improvements, are the men who are buying OWEN cars.

They are doing so because the OWEN *embodies* those improvements they have been wondering why other manufacturers have not provided in their cars.

There are other high grade cars having the best materials and workmanship, but the OWEN represents ideas that are easily *two years ahead* of present standards of motor car construction instead of being a 1910 model with a few refinements.

OWEN *left hand drive* with *right hand control* gives the driver a clear view of the road behind in making a turn to the left or completely around. It permits of easy access to the front seat from the *curb* side.

OWEN long stroke motor (4¾ in. bore by 6 in. stroke) develops greater turning power at slow speeds than the "squared" or nearly squared motor, reducing *vibration* and *wear* and decreasing fuel expense.

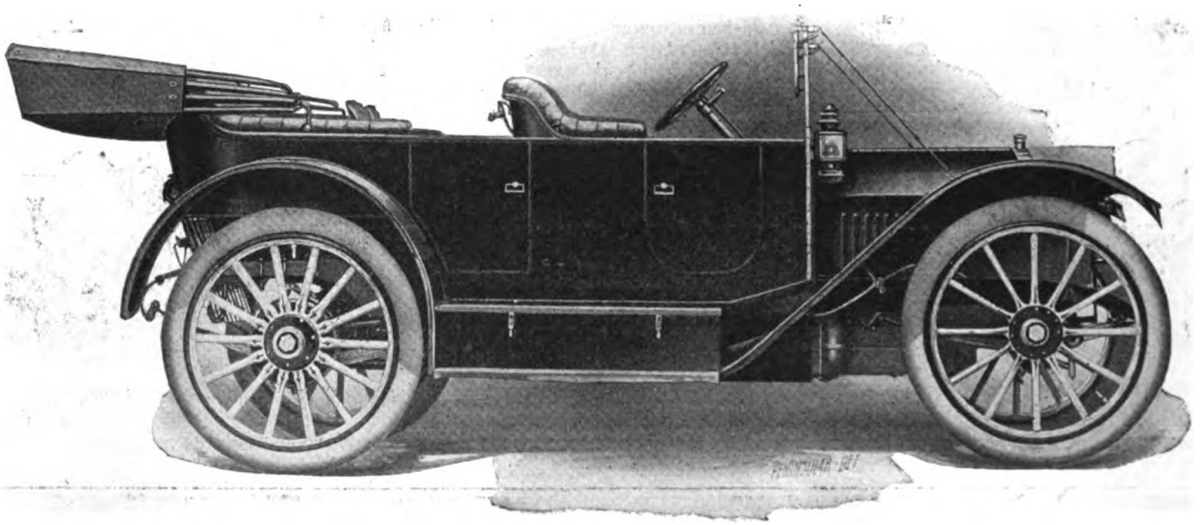
OWEN 42-inch wheels decrease tire expense by giving a much greater tire mileage. The large wheels easily roll over road obstructions that make rough going for wheels of smaller diameter.

OWEN front and rear dropped frame gives a *lower* center of gravity than that of most cars, yet provides ample road clearance.

OWEN cars are *completely equippea* for touring—nothing to buy but license tag and fuel.

**TO DEALERS:** Some desirable territory can be closed by progressive dealers who make immediate application.

**Owen Motor Car Company, 1620 E. Grand Blvd., Detroit, Mich.**




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The Overland

# What Foresight Did for the Overland

The Overland

**The amazing demand for Overlands has become the sensation of motordom. It is due to this fact: We began two years ago to prepare for conditions existing today. These are some of the things we did:**

We saw long ago that the demand of the future would come mainly from men of moderate means—from careful, economical people.

We knew that the cost of cars must come down. We saw that the greatest demand would soon go to that maker who gave the best car for the money.

So we invested our earnings—every penny of profit—in labor-saving machinery, in modern equipment. That investment to date exceeds $3,000,000.

## Saving $300 Per Car

We began making the parts which other makers buy. And we made them with the latest automatic machinery.

We invested a quarter million dollars in jigs alone—to perform each operation in the most exact, most economical way. We put $150,000 into a crank-shaft plant, and saved a large sum on each car.

We equipped a large plant for making screws and nuts alone. We put in our own steel plant for making steel frames. We installed an aluminum foundry which saves $300 per day.

We covered dozens of acres of floor space with machinery for saving cost. Every existing machine was discarded as soon as our inventors found or devised something better.

There are dozens of machines each of which save the work of from twelve to twenty men. There are hundreds of parts which we are making for less than they ever were made before.

And we are making them better—making each part like every similar part. We are getting exactness such as hand work never gave—to the thousandth part of an inch.

Thus we have cut the cost of Overlands 20 per cent. within the past year alone. Thus we are saving our buyers an average of $300 per car.

## Utter Simplicity

We saw, too, that most new buyers would run their own cars. There would be no expert to care for them.

So we set our inventors to work on simplicity. Wherever possible they made one part to take the place of many. The Overland today has fewer parts than any other automobile.

They got rid of complexities, including the complex pump. They perfected the simplest, quietest, most reliable engine that ever went into a car.

Thus they made a car which almost cares for itself—which is practically trouble-proof. Many an Overland has run thousands of miles without even cleaning a spark plug.

They created the pedal control found in many Overland models. One goes forward or backward, fast or slow, by simply pushing pedals. A child can master the car in ten minutes.

We established a system of test and inspection—the most elaborate ever known. Thus we made certain that every owner would get a perfect car.

Each of these cars, on the average, has sold four others like it. The demand has spread like wildfire, until this year's sales will exceed $24,000,000.

## Overland Prices

A 25-horsepower Overland sells for $1,000 in roadster style—for $1,100 with tonneau. The wheel base is 102 inches, the possible speed is 50 miles an hour.

A 40-horsepower Overland, with single rumble seat, sells for $1,250. The wheel base is 112 inches. Other Overland models all the way to $1,500.

The Marion-Overland—the finest car that our engineers can create—sells for $1,850 with touring body. All of the prices include gas lamps and magneto. The Marion-Overland includes Prest-O-Lite tank.

## Judge for Yourself

You can easily prove that the Overland gives far more for the money than any other automobile. You can see for yourself that it is the simplest car in existence. You can prove these facts anywhere, for Overland dealers are in 800 towns.

There are Overland owners in every community. We have added 14,000 new ones in the past six months. They will tell you how low is the cost of upkeep—how reliable and trouble-proof are the cars. They are so reliable that the Government uses them to carry the mails.

Send us this coupon and we will send you the facts, and pictures of every style. Then see and compare the cars.

(N 28)

**The Willys-Overland Company**
**Toledo, Ohio**

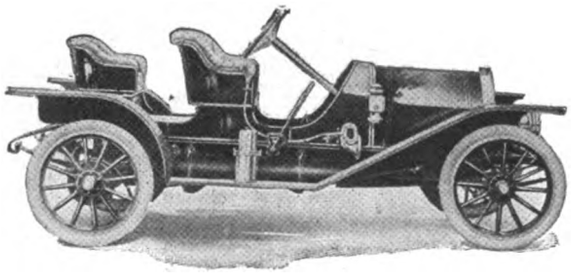
*Send me the facts about*

*Passenger Cars* ☐ *Delivery Cars* ☐

*The Marion-Overlands* ☐

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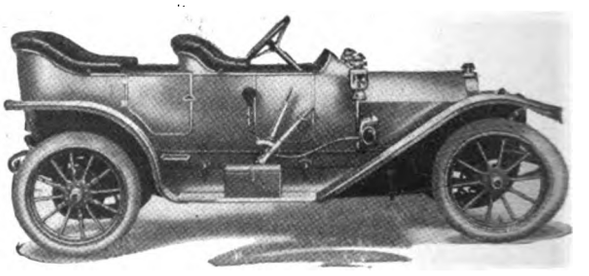
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The 25-horsepower Overland, with 102-inch wheel base, costs $1,000 to $1,100, according to style of body.
The 40-horsepower Overland, with 112-inch wheel base, costs $1,250 to $1,500, according to style of body, etc.

The Overland

All prices include gas lamps and magneto



The Marion-Overland—prince of the line—costs $1,850 with touring car body. Also made as racing roadster, as town car and with torpedo body.
Overland Delivery cars, $1,100. Capacity, 800 pounds and two Passengers.


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THE MOTOR WORLD

Volume XXIV. New York, U. S. A., Thursday, August 11, 1910. No. 6

## DECREE AGAINST FORD IS FILED

### Injunction Against Infringing Selden Patent Unless Defendants Appeal—Bond Fixed at $350,000.

After many delays the famous "Ford decree" at last has been entered in the Selden patent case, which was decided last fall. By its terms the Ford Motor Co. is held as infringing the Selden patent and is enjoined from manufacturing cars, although Judge Charles M. Hough simultaneously has filed a memorandum opinion which provides for a suspension of the injunction pending an appeal. If an appeal be taken, an order for the suspension of the injunction will be entered only if the Ford company files a bond which the court says shall be in the sum of $350,000, and further conditions provide that the defendants will be required to file with the court sworn monthly statements of the amount of their business.

With the Ford decree, Judge Hough has filed a similar decree in the test suits against Panhard & Levassor, with a like provision that an order suspending injunction may be entered if appeal be taken, but a bond of $16,000 must be filed, together with the monthly statements. In the three other cases, against John Wanamaker, O. J. Gude & Co. and against Henry and Aulbert C. Neubauer, importers, there is no provision in the decrees for the suspension of the injunction.

Much of the delay in the filing of the decrees has been due to the necessity of fighting out the question as to whether the name of the Columbia Motor Car Co., of Hartford, Conn., properly could be substituted for that of the Electric Vehicle Co., which it succeeded and which as the owner of the Selden patent was the complainant with George B. Selden against the defendants. The resistance offered by the latter to the change resulted in a complicated tangle of procedure which it has taken almost a year to get through. The Ford company long ago expressed its intention of carrying the litigation up to the court of appeals.

### Croxton-Keeton is in Bankruptcy.

Although a creditors' committee was formed for the purpose of assisting the Croxton-Keeton Motor Co., of Massillon, Ohio, in straightening its affairs, the company nevertheless has been petitioned into bankruptcy by four creditors, J. L. McLain, of Canton, Ohio, being appointed as receiver by the federal court at Cleveland. H. A. Croxton, president of the company, declares that the receivership will be of short duration, that all creditors will receive 100 cents on the dollar with 6 per cent. interest for delays, and that the concern will be reorganized on "sane, safe lines." The petitioning creditors are the United Manufacturers, $990; Continental Caoutchouc Co., $1,690; Stark Rolling Mills Co., $461; Canton Brass & Machine Co., $500.

### Reorganization Planned for Royal.

Negotiations are in progress looking to a partial reorganization of the Royal Tourist Car Co., of Cleveland, O., by which the company will enjoy a considerable increase of available capital and will commence the manufacture of models at from $1,500 to $2,000, in addition to the present type of large touring car. Several parts and materials men are indicated as being parties to the deal, which when consummated would result in a substantial strengthening and expansion of the company's production and selling organization.

### Rajah Sues a Cut-Price League.

Infringement suit for $10,000 damages has been brought by the Rajah Auto-Supply Co., of Bloomfield, N. J., against the fragrant International Automobile League of Buffalo, N. Y. It is alleged that the cut-price league has been selling plugs and ignition equipment bearing the "Rajah" trade-mark but which did not emanate from the Rajah factory.

## RECOVERING FROM THEIR SCARE

### Bennett Finds Western Farmers and Agents Prosperous—Haines Also Sees a Bright Outlook.

Returning from a direct personal investigation of trade conditions in that large general section of the country which lies between the Mississippi river and the Rockies, George W. Bennett, in his capacity as general sales manager of the Willys-Overland Co., of Toledo, O., declares that a marked improvement is observable in the districts where prosperity has an agricultural basis and announces the discovery of a unique scheme on the part of country bankers to "save their faces" in abandoning their attempts to stem the tide of automobile buying. His observations were made at first hand on a trip which took him as far west as Denver.

"Some cause for apprehension was created by a lull in the trade that was very apparent in the central and western portions of the country," says Bennett, "but saving rains and favorable conditions have brought about fine crops and everybody concerned is feeling opulent and optimistic. The temporary spell of pessimism is almost completely banished. The farmers have money and are ready to spend it for motor cars or anything else that they want."

Finding that their opposition to automobiles has proved something of a boomerang in creating panic sentiment, the country bankers, according to Bennett, despite their "resolutions" and conventions have found means to accommodate borrowers who want to buy cars now instead of waiting until crops are harvested. While complying with the letter of their "resolutions" not to accept the notes of intending automobile purchasers, they have hit upon the plan of officially endorsing the borrowers' notes, making them wholly acceptable to the automobile manufacturers. The Willys-Overland Co. plans to accept all

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such notes with bank officials' endorsements. Bennett asked one farmer what the latter thought of the local bank's reluctance to lend money for automobile buying. The farmer replied that he was going to show what he thought, by not entrusting that bank with any more of his money.

Fred W. Haines, general manager of the Regal Motor Car Co., of Detroit, Mich., also recently completed a tour of investigation, in both the East and the West. Like Bennett, he finds a great recovery from the temporary feeling of depression that prevailed in the western districts.

"The wonderful crops in the West," he says, "have enabled the farmer and the people he comes in contact with to buy automobiles without recourse to the banks, and, as the farmer now looks upon the automobile as a necessity and not with the feeling of antagonism shown in former years, there is no question in my mind but what the fall purchases of machines will be greater than ever before known.

"Whatever scare existed in the trade regarding the market for cars among the farmers was caused by the inclement weather that prevailed during the spring and early summer."

### United Rim Adopts a Demountable.

Originated and developed by the Continental Caoutchouc Co., of New York, the new Gilbert-Continental rim has been added to the United Rim Co.'s authorized standard types, and will be known as the "standard universal No. 3 type detachable demountable rim." The United Rim Co., as was explained at the time, represents a compromise of rim patents on the part of a group of the big tire makers in order that certain standard types of rim may be developed for universal adoption by automobile makers, as against the confusion of many individual competitive types. On July 1 the companies participating in the movement for standardized rims voluntarily retired from the manufacture of their own individual rims and permitted the United Rim Co., a patent holding corporation, to issue licenses to rim making concerns for the manufacture of two types of standard rim, known as "standard universal" No. 1 and No. 2 types, respectively, being of the quick detachable type. The companies in the movement include the Diamond Rubber Co., Goodyear Tire & Rubber Co., B. F. Goodrich Co., and the Rubber Goods Mfg. Co. group, consisting of the G & J Tire Co., Hartford Rubber Works Co., and Morgan & Wright, together with the Continental Caoutchouc Co., whose factory recently was acquired by the Rubber Goods company. The new rim is the third on the "standard" list, and permits the carrying of extra tires ready-flated on spare rims, allowing the use of clincher, quick detachable or Dunlop tires.

## CHANGES AMONG THE TRADESMEN

**Many Shifts Among Men who are Prominent in the Industry—Resignations, Elections and Appointments.**

Montgomery Hallowell has been chosen as general advertising manager of the United States Motor Co., and will have supervision of the publicity and advertising of the $30,000,000 parent company and of the concerns affiliated with organization, including the Maxwell-Briscoe Motor Co., the Columbia Motor Car Co., the Brush Runabout Co., the Alden Sampson Mfg. Co., the Dayton Motor Car Co., Courier Car Co., Briscoe Mfg. Co., Gray Motor Co. and Providence Engineering Works. Division advertising managers will be maintained at the various plant, who will report directly to the general office in New York. Hallowell for several years was connected with the Chicago Tribune, then became advertising manager of the National Cash Register Co. and later of the E. R. Thomas Motor Co. For the past three years he has been connected with the New York organization of Lord & Thomas advertising agents.

Harold L. Pope, who has been the designer for the Matheson Motor Car Co., of Wilkes-Barre, Pa., and now is serving as a receiver for the company, has been appointed manager of the "west works" of the Pope Mfg. Co., Hartford, Conn., of which latter company his brother, Albert L. Pope, is president. He will assume his new duties as soon as he can be released from participation in Matheson affairs. Previous to going with Matheson he was with Pope-Robinson, International, the Pope Mfg. Co.'s plant at Hagerstown, Pope-Toledo and Willys-Overland, respectively, serving in various capacities relating to designing, engineering, superintendency and plant management.

W. S. Hathaway, who for the past three years has been district sales manager of the Maxwell-Briscoe Motor Co., has been made general supervisor of all branch houses in the Western district of the United States Motor Co. The territory includes branches in Minneapolis, Omaha, Des Moines, St. Louis, Kansas City, Dallas, Los Angeles, San Francisco and Seattle, his jurisdiction covering the entire country west of the Mississippi. He will make a tour of inspection of the branches and establish headquarters in Kansas City.

Ernest H. Brandt, who recently resigned as president and general manager of the Rambler Automobile Co. of New York to join the sales organization of the United States Motor Co., has been made a district manager for the latter, and will have general sales supervision of the Brush runabout in the East. His territory comprises eighteen states on the Atlantic seaboard, from Florida to Maine.

N. H. Van Sicklen, Sr., has been elected president of the Fal Motor Co., of Chicago, Ill., making the Fal car. He long has been identified with the automobile industry and at one time was the publisher of Motor Age. E. H. Lowe, general manager and secretary of the company, retains those offices. In accordance with the company's general scheme of expansion, the capitalization has been increased from $200,000 to $900,000.

T. L. Hausmann, formerly with the New York City sales force of the Chalmers, has been appointed manager of the branch which the E-M-F Co, of Detroit, Mich., is to establish in St. Louis, Mo. The company has leased a large storage building at 4360 Duncan avenue, in northwest St. Louis, and is seeking a salesroom location on 12th street, in the automobile row.

A. G. Williams, formerly associated with C. Arthur Benjamin in Franklin and Aerocar activities, has been given charge of the wholesale and agency business of the Haynes Automobile Co., of New York. He will represent the company in New York, New Jersey and the New England states, in the distribution of Haynes cars.

J. E. Talty, who succeeded Charles F. U. Kelly as sales agent of the Continental Rubber Works, Erie, Pa., has resigned that office to join Kelly in the Kelly-Racine Rubber Co., of Racine, Wis., where the latter company's big new factory is nearing completion. Talty will be identified with the sales end of the business.

Edwin E. Servis has succeeded Jesse Draper as manager of the New York City branch of the Mora Co., of Newark, N. Y. He is not a new man to the Mora interests, as heretofore he has been located at the factory.

John C. Spiers has resigned as superintendent of the Mercer Automobile Co.'s factory at Trenton, N. J. His future plans not yet are announced.

### Cole to Open in San Francisco.

The Cole Motor Car Co., Indianapolis, Ind., is to open a branch in San Francisco, Cal., for the distribution of Cole "30" cars. F. W. Cole, Jr., will be the manager. Distributing agencies also are maintained in Los Angeles, Portland and Seattle for the Pacific coast trade.

### Bartholomew Reduces Prices.

The Bartholomew Co., of Peoria, Ill., has announced a reduction in the prices of its models in the future. Heretofore the Glide cars have been listed at $2,500, but the new models sell for $2,000, with the exception of the torpedo model, which is $2,150.

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## STOP SLICK SCHEME OF ROBBERY

**Two New York Firms Find Employes in Collusion with Outside Dealers—How Games Were Worked.**

Illustrating the ingenious methods of thievery which are possible on the part of employes in the handling of tires and accessories, the discovery has been made by two firms on New York City's "automobile row" that they were being systematically robbed, and in consequence of the discovery and subsequent prompt action, each firm has secured the arrest of two of its men and of an outside dealer working in collusion with them. The firms which have been victimized and are prosecuting are the B. F. Goodrich Co. of New York and the General Auto Supply Co., although their troubles are entirely separate and unrelated.

By the aid of private detectives, the Goodrich company found that two of its clerks, upon making sales of tires at retail for cash over the counter, were not entering the sales as cash retail sales, but would make out the sales slips in the form of sales to a dealer. According to the charges brought against the men alleged to be involved in the scheme, the clerks then would telephone to S. C. Meyer, of 2 Hudson street, a dealer who enjoys full dealers' discounts, and he would sign the slips for them, making the sales appear as bona-fide. They would pay him the dealers' price for the tires that they had sold at retail for cash, keeping the difference in their pockets. The tires being billed to Meyers in due course, he would promptly remit the dealers' price, deducting 5 per cent. for cash in 10 days, this deduction constituting his rake-off for obliging the clerks with his signature when needed. Bench warrants were issued for Meyers and for Walter Burke and Paul Foran, the suspected clerks, and the trio have been held on bail.

A packer and a shipping clerk, operating with an outside dealer who long has been under suspicion by the police department for shady practices, are charged with the scheme by which the General Auto Supply Co. lost thousands of dollars worth of goods. All three, including W. Gavin, the dealer, whose place is in a basement at Eighth avenue and 33d street, and Morris Balsam and John J. McKeon, the two employes, were arrested. Gavin is out on bail, McKeon languishes in jail and Balsam, after giving bail, is missing for the present. It is alleged that Gavin would order a bale of waste or something equally bulky from the Supply company, and that McKeon and Balsam would see to it that the shipment also contained from ten to a dozen Klaxon or Klaxonet horns, or their equivalent in valuable accessories, none of which extra items would go on Gavin's bill. Gavin would dispose of these accessories at cut prices, it is alleged, making a suitable settlement later with his two friends.

### Babcock Agents Discuss the Electric.

Agents of the Babcock Electric Carriage Co., of Buffalo, N. Y., gathered at the factory on Wednesday, 10th inst., for a three days' convention in which business and pleasure features alternated and interlarded. The range of discussion for the agents, as provided for in the program, included such topics as the electric outlook for the future, chain vs. shaft drive batteries, wheel vs. "stick" steer, body design, wheel base, extent of territory, deposits, results to be obtained by co-operation with power companies, and similar subjects.

### Metz to Sell Only Through Agents.

Abandoning the so-called "Metz plan," by which mail order customers bought the parts for Metz cars in separate batches and assembled the machines themselves, the Metz Company, of Waltham, Mass., is now marketing the car exclusively through dealers. The new Metz car sells for $485, assembled, painted and fully equipped. It is a two-cylinder, 12 horsepower, friction drive runabout, with Bosch magneto, 28 x 3 clincher tires, top, gas lamps and generator.

### Scott New Head of Parish & Bingham.

At a meeting of the directors of the Parish & Bingham Co., of Cleveland, O., the presidency of the company, recently left vacant by the death of G. W. Morse, was filled by the election of James Scott, of the Carnegie Steel Co., who has been vice-president of the company. William Cairns was made vice-president, and continues as general manager, while S. J. Wainwright, of Pittsburg, continues as secretary and treasurer.

### Rubber Takes a Slump in Price.

Rubber, which three months ago nominally reached $3 per pound for the grade used in automobile tires, has taken a decided slump in price, after holding at about $2.35 per pound for some time. At the fortnightly auction in Mincing Lane, London, on Tuesday, 9th inst., the quotations took a decided tumble, which was reflected in the New York market by quotations of $1.85 per pound for fine upriver Para.

### Primo Motor in Temporary Plant.

The Primo Motor Co., which is being promoted with considerable local hurrah in Atlanta, Ga., announces the taking possession of a temporary factory for the manufacture of Primo cars. The building is three stories high, with 15,000 square feet of floor space, and is located on the Georgia Central railroad, near the Fulton Bag & Cotton Mills.

## CASE TAKES OVER PIERCE-RACINE

**Product to be Known as the Case Car in Future—Manufacturing and Selling to be Expanded.**

The Pierce Motor Co., of Racine, Wis., making the Pierce-Racine car, has been taken over by the J. I. Case Threshing Machine Co., of Racine, and the product in future will be known as the Case car. The present plans provide for a tripling of the motor car production and for the distribution of the cars through the Case selling organization and through such additional dealers as may be selected by the company.

Little surprise is occasioned by the merger, as the principals in the Case company have been the chief stockholders in the Pierce company since its reorganization as an automobile manufacturing company, and it has been more or less a younger brother of the big corporation, which does a gigantic business in agricultural machinery. Not long ago the Case company endeavored to secure control of two of the largest automobile plants in the country, for merger purposes, but when these negotiations fell through, it was decided to enlarge the Pierce-Racine production to a point where it would be adequate for supplying the needs of the Case selling organization, which has its ramifications all over the world. James G. Cowling will continue as general manager of the automobile plant, and A. J. Pierce also will remain as designer. C. L. McIntosh, the president of the Pierce company, recently died in Europe. The officers of the Case Threshing Machine Co. are Frank K. Bull, president; Frederick Robinson, vice-president; Richard T. Robinson, secretary-treasurer, and F. Lee Norton, general manager.

### Franklin to Open Branch in Dallas.

The Franklin Automobile Co., which now distributes all the cars made by the H. H. Franklin Mfg. Co., of Syracuse, N. Y., is to open a branch in Dallas, Tex., about the first of October. Robert H. La Porte will be manager. The company already has branches in New York, Boston, Chicago, San Francisco, St. Louis, Pittsburg, Buffalo, Baltimore, Cincinnati, Rochester, Cleveland, Albany and Syracuse. It is the intention of the selling organization to make the branches distributing centers for surrounding territory, for the benefit of Franklin dealers and owners.

### Van Motor to Move to Grand Haven.

The Van Motor Co., of Chicago, Ill., is to move to Grand Haven, Mich. The business men's association of the latter place has arranged to quarter the company in the Coryl Piano Co.'s plant.

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## THE WEEK'S INCORPORATIONS.

Detroit, Mich.—Lion Motor Sales Co., under Michigan laws, with $10,000 capital; to deal in automobiles.

Cleveland, Ohio—De Luxe Motor Vehicle Co., under Ohio laws, with $100,000 capital. Corporators—W. G. Moore and others.

New York City, N. Y.—United Motors Co., under Delaware laws, with $5,000,000 capital. Corporators—C. A. Bates, J. P. Geerlofs, W. O. Cook.

Carlsbad, N. M.—Eddy Automobile Club, under New Mexico laws, with $3,000 capital. Corporators—J. B. Roberts, B. H. Schwertfeger, J. F. Crozier.

Pittsburg, Pa.—Universal Auto Bureau & Supply Co., under Delaware laws, with $200,000 capital. Corporators—L. G. Justin, W. G. Crawford, A. M. Binsley.

Toledo, Ohio—E. C. Rassell Co., under Ohio laws, with $25,000 capital; to manufacture automobile trucks. Corporators—Edward C. Rassell, Nicholas W. Rassell.

Milwaukee, Wis.—Highland Motor Garage Co., under Wisconsin laws, with $1,000 capital; to operate a garage. Corporators—A. F. Eckstein, S. W. Glover, C. M. Arndt.

Columbia, S. C.—Columbia Auto Co., under South Carolina laws, with $5,000 capital; to rent and deal in automobiles. Corporators—W. W. Pearce, G. R. McNeill.

Cincinnati, Ohio—J. S. Stevens Auto Co., under Ohio laws, with $5,000 capital; to maintain a garage. Corporators—J. S. Stevens, J. F. Turner, F. G. Stevens, S. R. Hollin.

Paterson, N. J.—Idle Hour Auto Co., under New Jersey laws, with $100,000 capital; to construct and deal in automobiles. Corporators—C. A. Isleib, A. Naab, A. Schmid.

Pueblo, Col.—Ideal Motor Car Co., under Colorado laws, with $25,000 capital; to operate, rent and deal in automobiles. Corporators—Harry A. White, A. E. Fist, H. W. Riggs.

Oshkosh, Wis.—Oshkosh Tire Repair Co., under Wisconsin laws, with $5,000 capital; to conduct repair shop and garage. Corporators—C. S. Josslyn, E. S. Josslyn, M. Koenig.

Jersey City, N. J.—Pope Motor Co., under New Jersey laws, with $125,000 capital; to manufacture automobiles. Corporators—F. Koch, W. C. Fisk, C. E. Fisk, all of Jersey City.

Weedsport, N. Y.—Auburn Auto Delivery Co., under New York laws; to operate automobiles, motor trucks and delivery wagons for hire, and to do a general automobile business.

Dillon, Mont.—Montana Automobile Supply Co., under Montana laws, with $20,000 capital; to deal in automobiles and accessories. Corporators—J. P. Best, O. M. Best, M. E. Barry.

New York City, N. Y.—Spencer-Llano-Briner Co., under New York laws, with $25,000 capital; to do general automobile business. Corporators—C. A. Spencer, H. A. Briner, A. M. Llano.

Norfolk, Va.—Chalmers Motor Co. of Virginia, under Virginia laws, with $15,000 capital; to do general automobile business. Corporators—W. S. Broderick, G. E. Broderick, Lee Counselman.

Kansas City, Mo.—Pope Hartford Sales Co., under Missouri laws, with $5,000 capital; to deal in automobiles and accessories. Corporators—George W. Evans, Bruce Dodson, H. W. Jacques.

Jersey City, N. J.—Madison Auto Co., under New Jersey laws, with $25,000 capital; to manufacture automobiles and motor trucks. Corporators—W. W. Stewart, W. S. Rowland, C. W. Grant.

St. Louis, Mo.—Rex Automobile Co., under Missouri laws, with $10,000 capital; to operate a garage and deal in accessories. Corporators—A. C. Heibeck, Albert Weiser, Minnie A. Klein.

Chicago, Ill.—Elgin Automobile Road Race Association, under Illinois laws, with $20,000 capital. Corporators—Fred W. Jenks, W. C. Willson, M. M. Cloudman, Theodore Schmitz, Philip Freiler.

Buffalo, N. Y.—Overland Buffalo Co., under New York laws, with $25,000 capital; to manufacture and deal in automobiles and supplies. Corporators—H. B. Smith, G. C. Smith, P. C. Citerley.

Indianapolis, Ind.—Chapin Mfg. Co., under Indiana laws, with $20,000 capital; to manufacture carburetters. Corporators—G. F. Quick, W. S. Boling, Daniel Rosenbaum, W. Y. Chapin, F. A. Chapin.

Waterville, Me.—American Automobile Boiler Feeder Co., under Maine laws, with $100,000 capital, of which $60,000 has been paid in. Corporators—George W. Boynton, Matthew S. Goodrich, James H. Murray.

Kansas City, Mo.—Walden M. Shaw Auto Livery Co., under Missouri laws, with $50,000 capital; to conduct automobile renting service. Corporators—Edward N. D'Ancona, S. J. Pflaum, H. C. McCormick.

Schenectady, N. Y.—Warren-Detroit Distributing Co., under New York laws, with $1,000 capital; to deal in automobiles and accessories. Corporators—Helen A. Bristol, George S. Shieferlein, Henry R. Glifford.

Buffalo, N. Y.—International Automobile League Tire & Rubber Co., under New York laws, with $1,000,000 capital; to manufacture automobiles and rubber. Corporators—A. C. Bidwell, W. Preiss, C. H. Bowe.

Brooklyn, N. Y.—Catskill Mountain Automobile Service Co., under New York laws, with $10,000 capital; to operate motor buses in Delaware, Green and Ulster counties, N. Y. Corporators—Harry Felber, Arthur Felber, Samuel Weinstein, all of Brooklyn, N. Y.

Richmond, Va.—Imperial Motor Car Co., under Virginia laws, with $50,000 (maximum, $5,000 minimum) capital; to do general automobile business. Corporators—S. F. Guggenheimer, E. J. Allen, M. E. Wright.

Chicago, Ill.—Bellevue Place & Rush Street Livery, under Illinois laws, with $2,500; to conduct livery, automobile renting, storage and hauling business. Corporators—William Brown, V. S. Hay, J. M. Wright.

Saratoga, N. Y.—Northern New York Carhart Automobile Sales Co., under New York laws, with $10,000 capital; to do general automobile business. Corporators—Wharton Meehan, William M. Gage, James M. Gage.

### Increases of Capitalization.

Springfield, Ill.—Rayfield Motor Car Co. increases capital from $74,000 to $150,000.

Chicago, Ill.—Interstate Garage increases capital from $5,000 to $50,000.

### Receiver to Build Continental Cars.

Authority has been given to the Security Trust Co., receiver of the bankrupt Indiana Motor Mfg. Co., of Franklin, Ind., to proceed with the manufacture of 150 Continental automobiles and to borrow not more than $25,000 for the purpose of carrying on the work. It was represented to Judge Leathers, of the superior court of Indianapolis, that the work would not require more than 90 days.

### Cotta Transmission in Bankruptcy.

Bankruptcy proceedings have been brought against the Cotta Transmission Co., of Rockford, Ill., and the Federal court at Chicago, Ill., has appointed Attorney E. M. St. John as receiver. The petition was filed by stockholders who are creditors of the concern. The receiver places the assets of the company at $75,000 and the liabilities at $50,000. A reorganization is expected.

### Referee Sells Belmont Property.

The Belmont Automobile Mfg. Co., of New Haven, Conn., has passed out of existence by the sale of its property at auction by the referee in bankruptcy. The purchasers are A. G. Cheney, H. G. Ingalls and A. D. Woodruff, who are indicated as coming from the vicinity of Albany, N. Y., and whose bid was $6,415. The manufacturing operations in New Haven will not be resumed.

### Disposes of New Amsterdam Assets.

Sale of the assets of the bankrupt New Amsterdam Motor Co., of New York City, by the sheriff's auctioneer, on the 8th inst., realized about $1,700. The liabilities of the concern amount to $52,226, of which $20,000 is in two unliquidated claims for damages.

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## IN THE RETAIL WORLD.

E. H. Pool, of Ottawa, Ill., has opened a garage and repair shop in Yorkville, Ill. It is located in the old City Hotel.

S. C. Douglas has established a salesroom and garage on Douglas street, Sioux City, Ia.; he will exhibit Buick cars.

The Lexington Motor Co. has commenced business at 1330 Michigan avenue, Chicago, Ill. R. S. Mattoon is its manager.

The Adams & Pruett garage in West Ohio street, Rockville, Ind., has changed hands. Sidwell Alden is the new owner.

Atlantic City will soon have still another garage. Martin W. Newton is building one at 4 North Montgomery avenue, at a cost of $3,000.

A $10,000 dollar garage is being built at the corner of Atlantic avenue and South Craig street, Pittsburg, Pa. A. X. Phelan is the proprietor of it.

The Lane-Lynch Motor Co., of St. Louis, Mo., has leased for a long term the building at 1516 Locust street; it is being fitted up as a garage and salesroom.

The Frogner Auto Co. is the style of a new concern which has engaged in the automobile business in Shawano, Wis. Vulcanizing and repairing will be featured.

The Overland Garage and the Victoria Mfg. Co. have erected a new garage at the corner of Bridge and Forest streets, Victoria, Texas. The cost of the structure is $15,000.

James L. Welch, of Webster, Mass., who conducted an automobile repair shop and accessories business, has filed a petition in bankruptcy. His liabilities are given as $4,386.93; assets, $1,260.

Thieves broke into the garage of the Electric Carriage & Battery Co., at 12th and Harmon streets, Minneapolis, Minn., and carried away the entire tool equipment valued at over $200.

The Joseph Campbell Co., Camden, N. J., is building a new garage at 137 Arch street, 70 x 23 feet, one story high. The structure is to be used as a repair shop in connection with the salesrooms adjoining.

Ground has been broken for a three story garage at Fifth avenue and Seneca street, Seattle, Wash., where Apperson cars and Rapid trucks are to be shown. W. B. Barnes is the owner and manager.

Edward Ellis, formerly salesman for the Royal Automobile Co., has left that concern to engage in the sale of second-hand cars in Minneapolis, Minn. His salesrooms are in the Security Bank building.

D. S. Kruidenier, of Des Moines, Ia., has bought the business of the American Motor Car Co., of that city, and has styled the new company the D. S. Kruidenier Co. Cadillac automobiles will be shown.

Ground has been broken for a new garage on 61st street, near Girard avenue, Philadelphia, Pa. The structure will be one story high, of brick, 121 x 40 feet, and cost $6,000. Mitchell Bros. are the owners.

George W. Candler is building a three story fireproof stable and garage at 298-300 Fifth street, Milwaukee, Wis. The building will be 50 x 150 and will have accommodations for at least sixty horses and forty automobiles.

Under the style the Rex Automobile Co., a new company has been formed in St. Louis, Mo., with A. C. Heibel and Manny Klein as the moving spirits. They have established headquarters at 1523 South Jefferson avenue.

W. C. Marsh, who handled motorcycles at 173 Huntington avenue, Boston, and who recently took on Paige-Detroit cars, has formed the W. C. Marsh Motor Co. to exploit his new line. He will continue at the Huntington avenue address.

Under the style the Susquehanna Motor Car Co., a new company has "opened up" at 37 West Market street, Wilkesbarre, Pa. E. R. Pettebone and S. C. Pettebone are the partners in the new concern, which will handle the Cadillac line.

Judge Daniel A. Green, of Birmingham, Ala., has entered the automobile business and is building a garage at the corner of Avenue D and 21st street in his home town. The structure is of brick and concrete, and will cost, when complete, $9,000.

W. B. Davis, E. H. Putt and several others of Cleveland, Ohio, have organized the Kissel Kar Co. of Cleveland, and opened salesrooms at 2344 Euclid avenue. W. B. Davis, the general manager, formerly was salesman for the Chalmers-Detroit Motor Co.

Si Perkins, who conducted a garage at 26-28 Eighth street North, Minneapolis, Minn., has sold his interest to the Clark-Carter Auto Co., of Jackson, Mich. Cutting "40" cars will be shown by Perkins, who has been retained by the new owners as sales manager.

The Royal Livery Co., of Pueblo, Col., has found it necessary to add an automobile delivery branch to its livery stable. A garage, 120 x 50 feet, has been built adjoining the old livery stable, and the company has changed its name to the Royal Garage & Livery Co.

The Kerr-Doane Motor Co., Syracuse, N. Y., has commenced the erection of a new garage at the corner of South State and Cedar streets. The building is to be 60 x 120 feet, of steel and tapestry brick, with hardwood floors, and will afford accommodation for 45 cars.

Hereafter Stevens-Duryea cars will be handled in St. Louis, Mo., by the Chicopee Motor Car Co., a new company which just has been organized by George N. Booker, J. J. Blinkoe and others. They have leased the former Brown-Gardener garage at 5141-43 Delmar boulevard and installed a complete repair plant.

A garage of unusual architectural beauty is being built for the Detroit Motor Sales Co. at the corner of Woodward and Canfield streets, Detroit, Mich. The structure is 150 x 50 feet, of pressed brick and concrete, and will include garage, salesroom and a complete machine shop.

The Levy & Hipple Motor Co., of Chicago, Ill., has filed notice of dissolution, George W. Hipple withdrawing from the company. The name of the company has been changed to the Chalmers Motor Car Co. of Illinois, and James Levy continues as president and treasurer, while Charles T. Gregory is named as the new general manager. A branch house will be opened at Peoria, Ill.

M. F. McCoole and B. B. Mercer have formed a partnership and opened a garage and salesroom at 24-26 West Fifth street, Oklahoma City, Okla., where they will exhibit Chalmers cars. Neither of the partners heretofore has been identified with the automobile business, McCoole having been connected with the National Cash Register Co. and Mercer with the Burroughs Adding Machine Co.

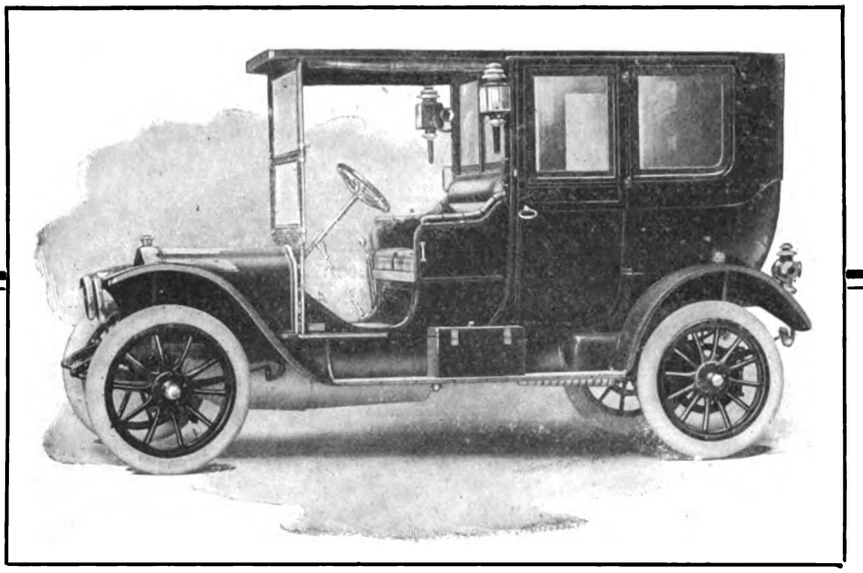
Jacob P. Anderson and S. A. Lee, both of Cincinnati, Ohio, have formed a partnership, which will be known as the Elmwood Place Auto Top & Supply Co. The factory which they are preparing to build will be located at Carthage pike and Beech avenue, Elmwood Place, a suburb of Cincinnati. Besides manufacturing tops and accessories, the new firm will handle general repair work.

Planning to build a large garage, and to store, repair and fit out their cars on the co-operative plan, a number of Cleveland residents have formed an organization to be known as the Automobile Owners' Low Maintenance Association. J. J. Houska and Emil E. Masl are the chief supporters of the scheme, which, as is usual in such schemes, includes the buying of all supplies at wholesale prices.

Harry A. White, E. A. Fist and H. W. Riggs, all of Pueblo, Col., have purchased the automobile interest of the Pueblo Novelty Works & Automobile Co., at 813-815 North Main street, and have organized under the style the Ideal Motor Car Co. The new firm will feature the Stoddard-Dayton and Alco lines, and will act as distributors for southwestern Colorado. H. A. White will be the active manager of the business.

A double garage and salesroom just has been finished at Delmar and Clarendon avenues, St. Louis, Mo., and will be occupied by the Park Automobile Co., and C. F. and J. R. Brown. The Park company handles the Chalmers, Thomas, Hudson and Baker electric cars, while the Browns show Peerless gasolene cars and Detroit electrics. The double building housing these two companies is two stories high, of the heaviest concrete construction and said to be absolutely fireproof.

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IN that service in which style is indispensable—town cars for Winter use the White Limousines and Landaulets are offered as conspicuous examples of correctness. There is an indefinable air of style about them—a patrician elegance evident in every line—the master touch of the artist who has overlooked no detail. The appointments are rich and luxurious without being obtrusive—the hidden things are as carefully handled as though you were to see them.

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"Enclosed please find check for renewal of my subscription for the Motor World. It is an excellent journal and I like it very much."—A. F. Pringle, Northfield, Minn.

### Taxation on an Engineering Basis.

The justice and necessity of the cause which seeks either for Federal regulation of the automobile question or of an equating of statutory provisions daily is becoming more clearly apparent. The very rancor existing between various states which at present are seeking to establish reciprocal licensing provisions points to the wisdom of accomplishing some definite movement in the right direction and that right speedily. The growing employment of commercial motor vehicles in established commerce suggests even graver complications than now exist before many years shall have rolled around.

But a new light is thrown on the question by the masterful exposition of the subject presented to the automobile engineers at their recent meeting by Mr. Chas. Thaddeus Terry. With true expository force it seeks not to express a remedy but to indicate the quarters in which remedial forces may be developed. Likewise it reveals new and unexplored depths of reasoning rendered possible by the principle of highway taxation based upon the use of the roads: If road wear is to be the basis of taxation, what is to be the unit of road wear? Shall the weight, speed, motive force or purpose of the vehicle be taken into account—and how? These and other questions arise when the crumbs of logic are sifted out of the present situation.

As an engineering problem, the quest for a just basis for automobile taxation seems to develop even more possibilities than are discoverable when it is treated merely as a problem in modern civics. Back of the absurdities of differential states' laws, back of the injustices of special taxation for inherent privileges, back of the deprivation of constitutional rights—all of which are claimed to exist by those who are seeking to right the present turbulence—lies the broad question of the highway itself, and the need that it be standardized to meet the requirements of modern traffic. Perhaps the wheel tax is more equable than the land tax when it comes to road maintenance, but after all, what the man in the car wants immediately is the right to travel where and when he pleases without fear of frontier hold-ups and whether he travels on foot, by rail or in his motor car.

### Developing the Light Motor Truck.

Before showtime comes 'round again there promise to be as many ways of expressing the fact that a new model touring car has two doors in front and two behind as there are expressions to denote the snug and abreviated tonneau. Not that the activities of the designers and press agents who are so busy inventing new names are at all to be deplored, even when they are so anxious for distinction as word-builders as to resent the use of names of their own coinage by other designers and press agents. The multiplication of designations merely adds a trifle to the perplexities of the unsophisticated intending buyer and lends an atmosphere of gay variety to the "automobile row" of any town where half a dozen similar cars of different make may happen to be displayed in adjacent windows under varying class names.

But one point in connection with the popularization of the high-sided touring car, whatever its fancied name may be, is worthy of attention. The high sides afford ample protection against dust and mud and against the chill draughts of spring and fall; during the winter months, naturally, they will be appreciated to their full value. But for travel during the hot summer season, particularly when the top is down, they promise an amount of warmth which it is far from pleasant to contemplate. Therefore those manufacturers who, foreseeing possible objections to the full torpedo touring type, have provided removable doors, may be supposed to be on the right track. With this arrangement, the car may be, at will, either a full torpedo or what is virtually a surrey. Either type is particularly useful under certain climatic conditions. The possession of a vehicle which could be used in either capacity at small inconvenience in making the conversion should appeal to a large number of buyers.

### A Question of Spelling and Utility.

Speaking of the commercial vehicle it is pretty generally conceded that there is a big demand for the light trucks suitable for medium loads and for heavy delivery purposes in particular. Similarly it is conceded that a thoroughly suitable machine of this class is exceedingly hard to find: by some critics it is even claimed that the ideal vehicle of a thousand or fifteen hundren pounds capacity is yet to be produced. Certain it is that whereas the motor truck is fast approaching a highly satisfactory stage in its evolution, its lighter counterpart is not experiencing a corresponding advancement.

Viewed in a general way, this is rather an astonishing conclusion. Regarded purely as a manufacturing proposition, however, it is easy to see that it is a natural result of a logical economic condition. Briefly, 90 per cent., more or less, of all production represents the toll of hand labor; hand labor is relatively a fixed charge; and given a certain number of fixed operations necessary to produce a definite number of parts, it matters little what are the dimensions of those parts.

As was pointed out two or three years ago, when the general inclination to build cars of 30 horsepower or less instead of larger cars was strong upon a majority of the makers, the respective cost of two cars of similar design is well-nigh independent of

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their size, power and weight. Where the only difference between the two models is a dimensional difference, the practical saving in the cost of the smaller vehicle is represented by the saving in weight multiplied by the average cost of materials.

Specifically, it may be explained that the reason why it is easier to build a good truck of three tons capacity than it is to build an equally substantial car to handle a half-ton load is that the production cost does not vary in proportion to the capacity. It is not necessarily true that it is impossible to build as reliable a car of medium capacity as can be made in larger size; the question is entirely one of selling price. And whatever may be said of the respective qualities of various freight-carrying machines now on the market, the fact remains that the buyer has not as yet been educated to an appreciation of the true value of the commercial car; nor has the commercial branch of the industry settled down to a point where the builder safely can take a normal manufacturing profit and let down the price to its lowest safe point.

The case of the light delivery car is altogether different. That reaps a better advantage from the pleasure vehicle end of the industry, labors under less exacting requirements and can be produced at a more economical figure. By retaining the general form of the pleasure chassis and increasing the size of its parts, it is possible to produce a fairly satisfactory, medium capacity, small truck on the same basis. Some of the very efficient municipal service cars now in use represent this sort of effort. But for the real light truck construction, while the effort is young and the market underdeveloped, the price question is bound to prove difficult of adjustment. The secret of success with the class of machine in question, of course, must lie in multiple production. But until big outputs are possible, that type is likely to be the subject for no little misunderstanding.

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Badges that look like the discarded tops of shoe blacking tins, and number plates with loosely attached and jaggedly arranged digits that fall off when a car strikes a severe bump, hardly seem in keeping with the dignity which should mark the operation of the automobile law of the Empire State. The chauffeurs' badges and the number plates are as shoddy products as ever were offered, and are glaring indices of either graft or incompetence.

## COMING EVENTS

August 11, Algonquin, Ill.—Chicago Motor Club's annual twin hill climb.

August 11-21, Rochester, N. Y.—Automobile Club of Rochester's annual tour.

August 12-13, Philadelphia, Pa.—North American's reliability run for commercial motor vehicles to Atlantic City, N. J., and return.

August 13, Newcastle, Ind.—Newcastle Fair Association's race meet.

August 13, New York City—Motor Racing Association's matinee at Brighton Beach track.

August 15, Philadelphia, Pa.—Start of second annual Munsey Historical Tour, ending at Washington, D. C., 1,700 miles.

August 19-20, New York City, N. Y.—Motor Racing Association's 24 hours' race at Brighton Beach mile track.

August 20, Columbus, O.—Columbus Automobile Club's race met.

August 23, Cheyenne, Wyo.—Cheyenne Motor Club's race meet on motordrome.

August 24-26, Omaha, Neb.—Omaha Motor Club's three days' endurance run.

August 26-27, Elgin, Ill.—Chicago Motor Club's road race and speed carnival.

August 30, Washington, D. C.—Automobile Club of Washington's hill climb.

August 31, Minneapolis, Minn.—Minnesota State Automobile Association's reliability run.

August 31-September 8, Kansas City, Mo.—Automobile Club of Kansas City's reliability contest.

September 3 and 5, Indianapolis, Ind.—Grand Circuit meeting on Motor Speedway.

September 3, Wildwood, N. J.—North Wildwood Automobile Club's reliability run to Philadelphia.

September 5, Denver, Col.—Denver Motor Club's 200 miles road race.

September 5, Wildwood, N. J.—North Wildwood Automobile Club's beach race met on Ocean drive.

September 5-10, Minneapolis, Minn.—Automobile races at state fair grounds.

September 7-10, Lyons, N. Y.—Wayne County Agricultural Society Automobile races.

September 7-10, Buffalo, N. Y.—Automobile Club of Buffalo's touring reliability contest; 800 miles.

September 9-10, Providence, R. I.—Rhode Island Automobile Club's annual meet at Narragansett Park.

September 10, San Francisco, Cal.—Automobile Club of California's Portola road race in Golden Gate Park.

September 10-12, Seattle, Wash.—Seattle Motor Club's race meet.

September 10-12, New York City—Motor Contest Association's Catskill tour and hill climb.

September 15, Oklahoma City, Okla.—Oklahoma Automobile Association's hill climb.

September 17, Norristown, Pa.—Norristown Automobile Club's race meet.

September 18, Los Angeles, Cal.—Annual road race up Mount Baldy.

September 18, Syracuse, N. Y.—Automobile Club of Syracuse-Syracuse Automobile Dealers' Association joint race meet at Fair Grounds track.

September 21-23, Louisville, Ky.—Louisville Automobile Club's annual reliability and endurance run.

September 24, Santa Monica, Cal.—Southern California Automobile Dealers' Association's annual road race; 200 miles.

October 1, Springfield, Ill.—Automobile races at state fair grounds.

October 1, Mineola, L. I.—Sixth annual Vanderbilt Cup race on Long Island Motor Parkway, under the auspices of the Motor Cups Holding Co.

October 7-8, Indianapolis, Ind.—Closing meet on Indianapolis Motor Speedway.

October 8, Philadelphia, Pa.—Quaker City Motor Club's third annual 200 miles road race in Fairmount Park.

October 10-15, Hot Springs, Ark.—Automobile races at Arkansas State Fair.

October 15, Mineola, L. I.—Motor Cups Holding Co., 278 miles international road race on Motor Parkway, for the Grand Prize of the Automobile Club of America.

October 27-29, Dallas, Tex.—Dallas Automobile Club's race meet.

November 24, Savannah, Ga.—Savannah Automobile Club's road race.

October 20-22, Atlanta, Ga.—Atlanta Automobile Association's meet at motordrome.

November 5, Phoenix, Ariz.—Maricopa Automobile Club's Los Angeles-Phoenix road race.

November 6-15, San Antonio, Tex.—San Antonio Automobile Club's race meet.

November 10-13, San Antonio, Texas—San Antonio Automobile Club's races at International Fair grounds.

November 24, Redlands, Cal.—Mile High Hill Climb Association's contest.

January 7-14, New York City—Association of Licensed Automobile Manufacturers eleventh annual show in Madison Square Garden. Pleasure cars and accesories.

March 4-12, Boston, Mass.—Boston Automobile Dealers' Association's annual show in Mechanics building.

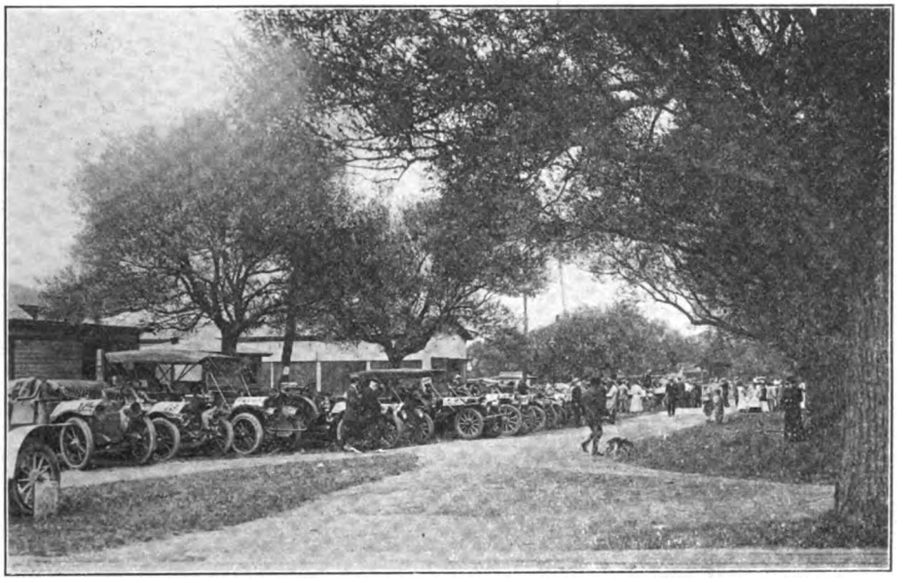
January 17-24, New York City—Association of Licensed Automobile Manufacturers eleventh annual show in Madison Square Garden. Second week devoted to commercial vehicles.

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## SECRET TIME SYSTEM SUCCEEDS

### Stops Scorching on Brooklyn Dealers' Two Days' Endurance Run—One Exception Conspicuous—Results Delayed.

Within two hours of the time the first car arrived at the last checking in station of the Long Island endurance run of the Brooklyn Motor Vehicle Dealers' Association, Wednesday evening, the 36 others had all put in an appearance. That was a better showing than had been expected of some of the lower powered vehicles, at least, judging by their schedules of Tuesday. Furthermore, the last two or three hours' run by all hands was in a hard rain, and those home last caught the heaviest of it.



COMPETING CARS IN PARK AT THE SOUTHAMPTON CONTROL

Of course, the technical committee has reserved its awards for a day or two; when the announcement comes several cars will be lacking clean scores, but on the heels of the wind up the affair appears to have been decidedly more of a success than seemed likely ten days ago. Originally set a month earlier, the July date was considered too late, but at that many dealers could not complete their preparations in time, so August was the only recourse. It was the first contest held by the new organization.

Perhaps the feature of the run was the attempt to prevent speeding by a system of secret controls, supplementing and checking in safeguards at a number of uncertain points. Here and there—once at least close to a dangerous turn—the technical committee popped up to read the speedometers and note the time. The idea was to curb a few thoughtless individuals who cast discredit on the recent "Montauk Point or Bust" run by their speeding. In general, the plan of fancying that an Indian lay in ambush behind every clump of shrubbery may be said to have proved efficacious. In one instance, however, the new method of vaccination failed to "take."

There was one youngster at the wheel of a speedy car who just couldn't get the germ of rapidity out of his system, so he "beat it" at intervals, stopping completely between to offset running ahead of the time allowance. With monumental pigheadedness he managed to open up eight times out of ten where the dust was thickest, bringing down on his head something beside the particles that he caused to descend upon others. Where the roads were well oiled or had lately been visited by rain, his inactivity was masterly.

While W. H. Kowenhoven as president of the new association of dealers was much in evidence, all the active management radiated from Edward F. Korbel, the press agent, who appropriately appeared at Southampton with an arm band proclaiming himself manager, although previously styling himself "secretary" in the mimeograph literature he sent out as publicity promoter for the affair.

While a Brooklyn affair, the borough of churches had no monopoly of entries. D. M. Bellman, the Hupmobile entrant, runs a garage at Bellport, Long Island, while Manhattanites included were the Cimmotti Bros. with a train of three Pullmans (unvestibuled); W. P. Mallon, of the Paterson; J. Mora Boyle, of the Midland; the Haynes Co., and the Bryant Motor Co., Kline distributors, all of that borough.

There was some lively work necessary to prevent another postponement. For instance, H. G. Martin hired a special float to get his 1911 model Inter-State from Weehawken the night before the start. In spite of the various drawbacks that discouraged the promoters up to a week beforehand, all but two of 39 entrants toed the mark for the start. The only two cars scratched were in the tourist class—the White steamer, of E. A. Bofinger, and the Stevens-Duryea, of Julius Bindrim. The latter put his car out of commission the day before by stripping the gears, but went along as an observer.

All but seven of the 37 starters were in the tourist division. They had not gone far before they realized that the stunt was the most comprehensive and exacting ever held on Long Island. Montauk, Promised Land and Goose Creek were about the only places not invaded.




BROOKLYN DEALERS—AND OTHERS— APPROACHING SMITHTOWN

The first fuel control was at Smithtown. To that point stiff grades were plentiful. From Smithtown a sharp turn was made southward across the island to Patchogue, the luncheon stop. Thence the run was through the Hamptons to Amagansett. There the trail—that word is used advisedly—led northward through the woods toward Sag Harbor, although a southerly detour back through Easthampton was

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necessary thereafter to reach the once famous whaling port. From Bridgehampton to Southampton the outward route was retraversed, the night stop being in the latter village. The Southampton hotel and garage accommodations were found insufficient, it being in the height of the resort season. Accordingly many motorists had to sleep in private houses, while the garage chartered was filled as closely as does a sausage its bareskin overcoat. The speedometer average for the first day was 178 miles.

Wednesday morning the turn led from Southampton to Riverhead and thence to Greenport, a more northerly route being followed along the north shore in returning. At Yaphank, in nearly the center of the island, a northerly path was taken to Port Jefferson, which is known only as Jeff since the recent benefit for the moving picture photographers in Nevada.

The early afternoon brought several miles run through the woods in almost as narrow a track as was the case Tuesday, north of Amagansett. If tops had not been furled they would have been carried by the board. From Huntington, the luncheon stop, the return to town was via Hicksville to the South Shore road. Just beyond Huntington an ocean of oil has been freshly put on the road, seemingly with a hose instead of a sprinkler, affording the best chance of the trip for skidding. Too much parsimony was shown in distributing confetti, which was cut into flakes nearly as large as mustard seeds, not more than seven of which were delivered at the same place. If such economy is desirable, why not save by buying second-hand confetti. Finally the paper trail was disregarded in favor of the road signs.

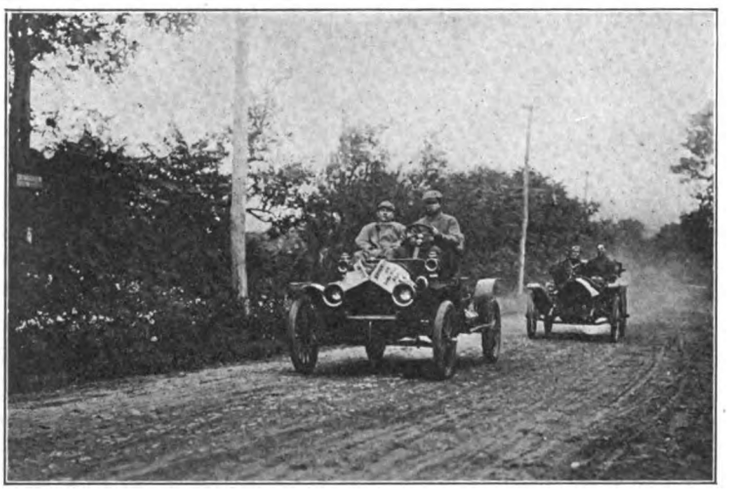
The awards will be made in the contesting division in six classes, graded according to price.

The first arrival at the final checking station Wednesday evening was W. H. Kowenhoven's Locomobile at 6:10 p. m., the first dozen following in order being Midland (Kline), Pullman (W. W. Lee), Pullman (F. Cimmiotti), Pullman (Ellis Kulp), Winton, S. G. V., Auburn, Interstate, Chalmers and Halladay.

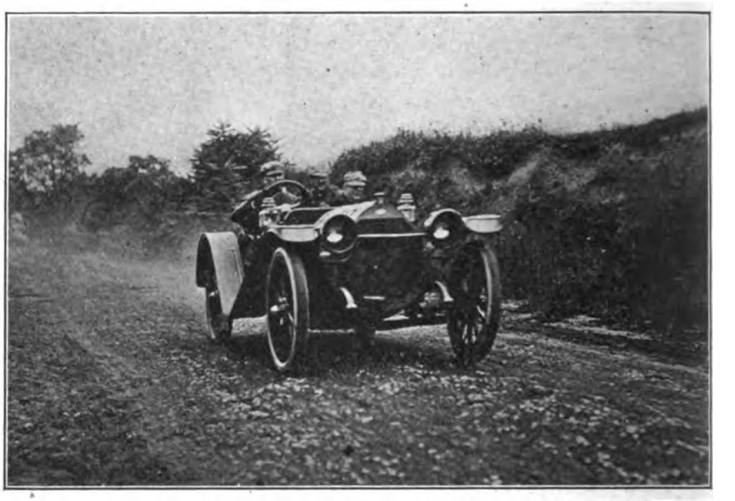
The entrants and their cars were as follows:

Contesting division—I. C. Kirkham, Columbia; Jos. D. Rourk, Haynes; W. H. Kowenhoven, Locomobile; Bruns Auto Co., Hudson; Bishop, McCormick & Bishop, Ford; H. G. Martin, InterState; I. M. Allen Co., Stevens-Duryea; I. C. Kirkham, Maxwell; F. W. Mathews, Ford; Grant Sq. Auto Co., Halladay; Carlson Auto Co., Winton; Enterprise Garage Co., Auburn; Cumberland Garage, Velie; D. M. Bellman, Hupmobile; Schapp Auto Sales Co., Krit; Mears Auto Co., S. G. V.; Carpenter Motor Vehicle Co., E-M-F "30;" Bryant Motor Co., Kline; G. W. Garland, Jr., Speedwell; W. H. Flessel, Maxwell; I. C. Kirkham, Columbia; Bruns Auto Co., Chalmers; J. Mora Boyle, Midland; Haynes Auto Co. of New York, Haynes; I. C. Kirkham, Maxwell; Prospect Park South Garage, Crawford; A. W. Blanchard, Herreshoff; C. T. Silver, Overland; Cimiotti Bros., Pullman; Cimiotti Bros., Pullman.

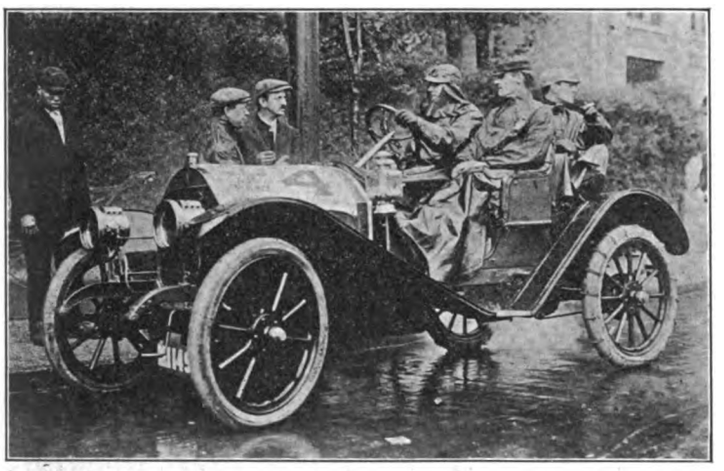
Tourist division—Bishop, McCormick & Bishop, Ford; H. G. Woodworth, Cadillac; W. P. Mallon, Paterson 30; Allen Swan Co., Stearns; W. S. Williamson, Cartercar; W. A. Kiley, Winton; Cimiotti Bros., Pullman; Suffolk Elec. Co., Ford.



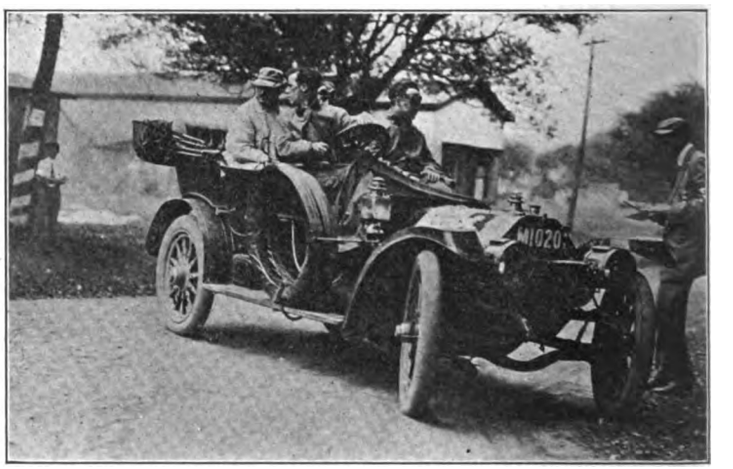
THE NEIGHBORLY FORD AND HUPMOBILE CARS



THE LOW-HUNG KLINE CAR ON THE ROAD



THE HUDSON READY FOR SKIDDING WEATHER



THE LOCOMOBILE TURNING IN CLOSE QUARTERS

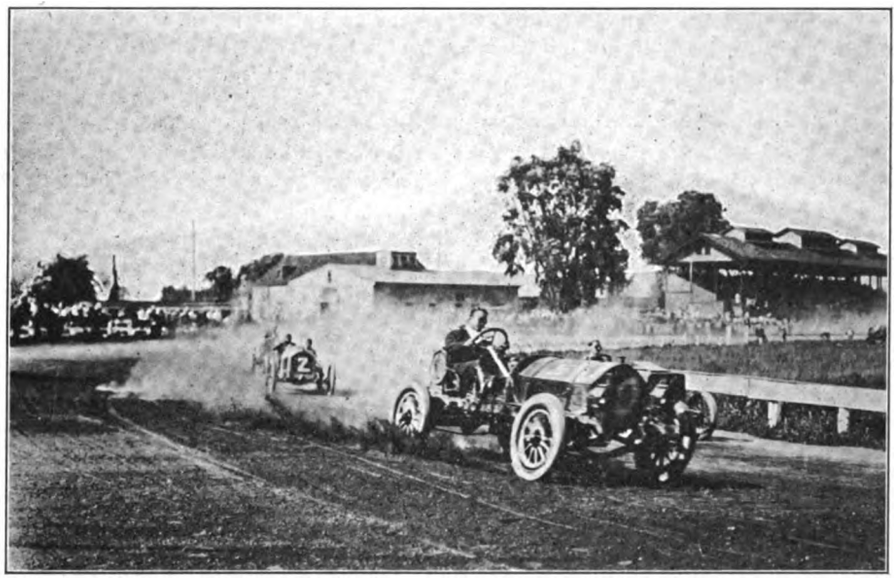
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## SPOTLIGHT PLAYS ON BARNEY

**Real Calcium at Point Breeze and Oldfield Basks in Its Rays—Only Stray Beams for Ringler and Ben Kirscher.**

Barney Oldfield was in the spotlight most of the time at the six hour race last Saturday at the Point Breeze track, Philadelphia, held under the auspices of the Quaker City Motor Club. He won the chief event, beside breaking the mile track record.

The term "spotlight" is used advisedly, inasmuch as one hundred calcium burners, such as are used for the lime lights in theatres, with powerful reflectors, were tried, for the first time, giving general satisfaction. More than 6,000 gallons of crude oil, according to the publicity agent, or three times as much as was ever used there before made slipping easy.



OLDFIELD SETTING THE PACE AT POINT BREEZE

Oldfield, while never headed, was kept busy every instant by Morton in the Kline car. At the end of the first hour the Darracq, driven by Kirscher, and Morton were tied for second place at 44 miles, to 46 for Oldfield. Second place was taken by Morton at the end of the second hour, seven miles behind, with Kulick third, three miles in the rear. Kulick took second place the third hour, while the next sixty minutes brought a lively struggle between Kulick and Fairman for second position. The two were tied at 209 miles, the fifth hour, but toward the end the Fairman "cinched" second honors. At the finish Oldfield had 261 miles to his credit, Fairman 245 miles, Kulick 226, the Selden 223, and the Chalmers 218 miles. Kirscher and Ringler did not finish. As the former dropped out during the third hour, Kirscher served as substitute for Oldfield at the end of the latter's limit period. In the preliminary contests Oldfield did a mile in one minute flat and on a second trial made 59⅗ seconds, establishing a new local mark.

Kirscher failed to lower the five miles record. If the frosting of the cake went to "the one and only," Harvey Ringler won a few crumbs. He captured two ten miles events, and made the fastest time of the day at that distance, although Oldfield in the Knox found the ten miles open event comparatively easy. The summaries:

One mile trials against track record of 1:01—Won by Barney Oldfield, Blitzen Benz; first trial, 60 seconds; second trial, 59⅗ seconds.

Ten miles scratch race—Won by Sherwood, Mercer; second, Jones, Mercer. Time, 12:28⅗.

Ten miles race open to Class C carc, 161 to 300 cubic inches—Won by Ringler, Pullman; second, Jones, Otto; third, Ford. Time, 11:33⅗.

Ten miles, open to Class C, 450 cubic inches or under—Won by Ringler, Pullman; econd, Kulick, Ford. Time, 11:20.

Five mile trial against record of 5:13—Ben Kirscher, Darracq. Time, 5:21⅕.

Ten miles open to Class C cars, 750 cubic inches and under—Won by Oldfield, Knox; second, Kirscher, Darracq; third, Fairman, Kline. Time, 11:34⅘.

### Lowell May Try Again for Its Race.

As the eager little town of Lowell, Mass., reads its cards now, it is going to get that big automobile race after all. After a long struggle to work public sentiment up to just the right point for it to support the race boom, enough antagonism developed to make it seem wise to call the whole thing off. Since abandoning the project, however, those interested in it have experienced a revival of courage, and they now announce that the race will be held, "injunction or no injunction."

## AN INVASION OF NEW ENGLAND

**Oldfield-Kirscher Combination Goes to Hartford and Divides Spoils of Speed—One Six States "Record" Set Up.**

New England has been invaded by the Oldfield-Kirscher racing combination, and the invasion was the occasion for the reopening of the Charter Oak track, Hartford, Conn., on Tuesday of this week, 9th inst. The old race course has not been stirred by the dust of a motor car contest for quite a while. Therefore a good crowd—some said as many as 6,000 persons—gathered to view the sport. The course had been massaged for the occasion, so that the dust was well pulverized. Nevertheless there was but one spill, when Myron Spencer, a mechanic, was tossed out of a Houpt-Rockwell car. Spencer was not seriously injured, but the car suffered a broken wheel and so was prevented from finishing the 50 miles free-for-all.

As is customary with meetings on the Oldfield circuit, at least one "record" was broken. The particular mark to fall on this occasion was the mile track record—"for New England." Oldfield himself made it in 51⅘ seconds, driving the big Benz.

The feature number on the program was the 50 miles race, which brought out the entire company, including several local supernumeraries. There were Oldfield and Kirscher, driving Knoxes; George Mack, Stanley Martin and Edward Ives, driving Houpt-Rockwell machines, and Lewis Strang, who has been out of the spotlight for some time, wo essayed to pilot an Allen-Kingston. It was Oldfield's race from the start, despite the fact that he had to stop once for a tire change. Saving the Allen-Kingston, all the others were disposed of before Oldfield crossed the tape after 51 minutes 55 seconds of driving. One minute and five seconds later Strang arrived.

Oldfield captured both of the five miles events, while Kirscher made a two miles exhibition performance in 1:45⅕. The aggregation then prepared to move on to its next stand, which is Worcester.

The summaries:

Two miles against time, Ben Kirscher, Darracq—Time, 1:46⅕.

One mile against time, Barney Oldfield, Benz—Time, 0:51⅘.

Five miles free-for-all—Won by Barney Oldfield, Knox; second, Ben Kirscher, Houpt-Rockwell; third, George Mack, Houpt-Rockwell. Time, 5:27⅗.

Five miles handicap—Won by Barney Oldfield, Knox (10 seconds); second, Ben Kirscher, Darracq (scratch); third, George Mack (17 seconds). Time, 5:20⅕.

Fifty miles free-for-all—Won by Marney Oldfield, Knox; second, Lewis Strang, Allen-Kingston. Time, 51:55.

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## RACE IN HONOR OF "KING COTTON"

### Three Days' Galveston Meet a Carnival Feature—Home Talent Scores and DeHymel Lands a Near-Record.

Ideal weather, admirable policing of the course, and complete freedom from serious accidents—all these combined to make the three days' race meet on the Galveston beach, August 3d, 4th and 5th a most successful affair. It formed a part of the city's cotton carnival and was witnessed by thousands who had never seen an automobile race, and who enthused accordingly, and as J. W. Munn, a local driver, was one of the star performers and the biggest winner, local pride was well satisfied. And although the crowds diminished in number each day, the enthusiasm waxed warmer, until it reached its climax at the end of the third day, when it was announced that Tobin de Hymel, driving a Stoddard-Dayton, had broken the world's record for 200 miles on straightaway courses. His time was 3:02:22, which certainly is fast—but it is no world's record.

As in most meets of this sort, the humorous side of life was not entirely obliterated, and the dogs of Galveston did their part in providing all the fun (for some people, at least) that any reasonable person could expect. How many of them ambled across the course and fled with tails between their legs a few seconds later, when one of the racing cars whizzed past them, it is impossible to say. There were hundreds of them! At the next meeting Galveston will install an official dog catcher on the course.

First Day—August 3d.

About 15,000 people were on hand for the first day, there being more fast cars competing than ever before there, while the events were unusually well balanced. The crowd was far easier handled than at the races the year before. The track condition at the starting hour, 2 p. m., was rather poor, owing to high tide, so that motorcycle contests were first run off. The longest, most exciting race was the 50 miles free-for-all, in which there was much shifting of positions on the several laps and one narrow escape, when a National, driven by J. W. Munn, of Galveston, owing to temporary trouble with the steering gear, came near to plunging head on into the ocean. Ben Johnson, in the Chadwick 60, won in 42:56⅘.

There was a clean start in the 30 miles event, but at the end of two-thirds of the distance the affair had narrowed to two Nationals. The one driven by J. W. Munn won in 27:57⅗, with Sundin's car second, a shade more than two minutes later.

The 20 miles event for stripped chassis of from 231 to 300 cubic inches also was fought out by two cars of one make, Marions, the half dozen other entrants withdrawing before the start, materially reducing the interest. Lee Carroll won in 21:42, while Paul Plummer crossed the line in 23:32⅗.

The other 20 miles race for stripped stock chassis of from 161 to 230 cubic inches went to Petit in a Buick in 21:42, with Delvitt, also in a Buick, second. Withdrawals and a poor start took the edge off public attention. The summary:

Fifty miles, free-for-all—Won by Johnson, Chadwick 60; second, DeWitt, Buick; third, Brinker, Inter-State. Time, 42:56:45.

Thirty miles, stripped stock chassis, 301 to 450 cubic inches—Won by Munn, National; second, Sundin, National; third, Brinker, Inter-State. Time, 27:57⅗.

Twenty miles, stripped stock chassis, 231 to 300 cubic inches—Won by Carroll, Marion; second, Plummer, Marion. Time, 21:42.

Twenty miles, stripped stock chassis, 161 to 230 cubic inches—Won by Petit, Buick; second, DeWitt, Buick. Time, 21:42⅘.

Second Day—August 4th.

The second day the crowd fell off about one-third. The feature of the day was the victory of Capt. J. W. Munn of Galveston, who won the 20 miles race in a National 40, beating De Hymel of San Antonio in a Stoddard-Dayton after the latter seemingly had victory within his grasp. Stopping a few moments for a minor adjustment during the 19th mile, the San Antonio boy lost so much ground that the best he could do was to come in third. Munn also took the 10 miles race for big cars in 8:09:35. Wind from the south caused high tides and somewhat delayed the start. The sand, however, was in better shape than the first day, but the one mile time trials with flying starts did not satisfy anybody. Zengle, Chalmers, made the best time, 40⅗ seconds, but all concerned previously had made better time.

The ten miles event for cars of from 161 to 230 inches displacement was won by DeHymel in the Stoddard-Dayton by a safe margin in 11:52⅘. Petit, Buick, second, and DeWitt, Buick, third.

In the ten miles race for stripped stock chassis of from 301 to 450 cubic inches Munn steadily drew away from Sundin in the National and Wells in a Moon, who finished in that order.

The ten miles for cars of from 231 to 300 inches displacement was captured by Carroll in the Marion after sensational work in the first five miles. The summary:

Twenty miles stripped stock chassis, 451 to 600 cubic inches—Won by Munn, National; second, Sundin, National. Time, 17:23.

Ten miles, stripped stock chassis, 161 to 230 cubic inches—Won by DeHymel, Stoddard-Dayton; second, Petit, Buick. Time, 11:52.

Ten miles, stripped stock chassis, 301 to 450 cubic inches—Won by Munn, National 40; second, Sundin, National; third, Wells, Moon. Time, 8:51⅗.

Ten miles, stripped stock chassis, 231 to 300 cubic inches—Won by Carroll, Marion; second, DeHymel, Stoddard-Dayton. Time, 11:10.

One mile time trials, flying start—Won by Zengle, Chadwick; second, DeHymel, Stoddard-Dayton. Time, 40⅗.

Third Day—August 5th.

The third day, finally, brought the big event—the main bout, so to speak, in comparison to which the others were mere preliminaries—the 200 miles free-for-all. Thirteen cars had been entered for this event, but just before the start two of them, the Simplex and the moon, were scratched, and a Hudson "20" substituted, so that only twelve faced the starter. DeHymel, in a Stoddard-Dayton, got away in front and was never headed. The pace gradually killed off all but four starters, DeHymel, Johnson, Munn and the little Hudson driven by E. H. Labadie, which, however, was 60 miles behind, but running in perfect form when the winner crossed the tape. A collision between the Marion and the Buick occurred just after the Marion had finished the eleventh lap and pulled up to the pit for some adjustments. The Buick is said to have been left too far from the pit, and in the way of the Marion. No one was injured. In addition to winning first prize, DeHymel also won the special prizes for the best time for the first 100 miles and 150 miles.

The summary:

Two hundred miles, free-for-all—Won by Tobin DeHymel, Stoddard-Dayton; second, Ben Johnson, Chadwick; third, J. W. Munn, National. Time, 3:02:22.

### Will Enforce "Thirty-day" Clause.

Although it has been necessary to exercise a little lenience in enforcing the "thirty day" clause in regard to the filing of stock car certificates heretofore, Chairman Butler, of the contest board of the American Automobile Association announces that hereafter the rule will be strictly enforced. In other words, not only must certificates describing stock models be filed with the contest board before cars of a given make and model will be permitted to compete in stock car events, but after the 10th inst. no stock cars will be eligible for competition until 30 days after the filing of certificates that applies to them.

### Horseflesh Losing Favor in Paris.

As indicating the rapidly decreasing use of horses in Paris it has been discovered by recent computation that only 76,047 animals would be available for requisition in time of war now, as against 98,284 in 1901. The figures thus reveal a decrease in ten years of no less than 22,237 horses.

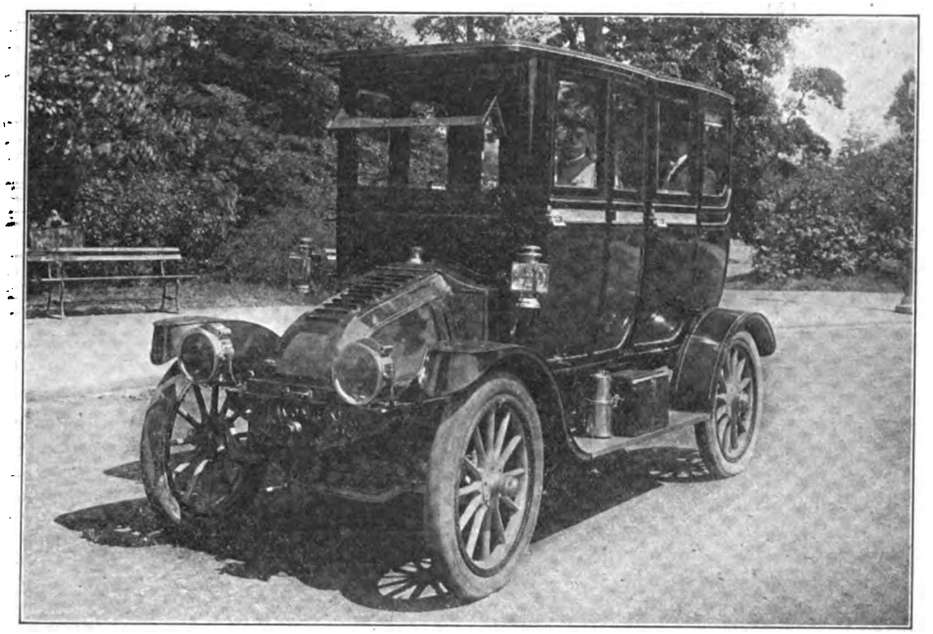
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## DISCLOSES MANY NEW FEATURES

### New Twombly Car Distinguished by Quick Convertible Body and Demountable Power Plant.

Possessing as a nucleus the fertile imagination and large stock of inventions of W. Irving Twombly, the Twombly Motor Co., of New York City, a million dollar corporation which was organized last June, is making active preparations to undertake the production of power plants and complete cars, paying particular attention to cabs of the taximeter variety. To this end a factory has been leased in Long Island City and the work of installing equipment begun. According to present plans, the new product will be ready for the market by next October.

Although the radical ideas and unusual products of the inventor, who is vice-president and general manager of the Twombly company, have come to light at various times the direction of his present plans and their magnitude were not generally known until this week. On Monday, however, at a special demonstration and luncheon given to the press at the Automobile Club of America, a special car was exhibited which is said to embody the principal features which are to distinguish the new cabs.



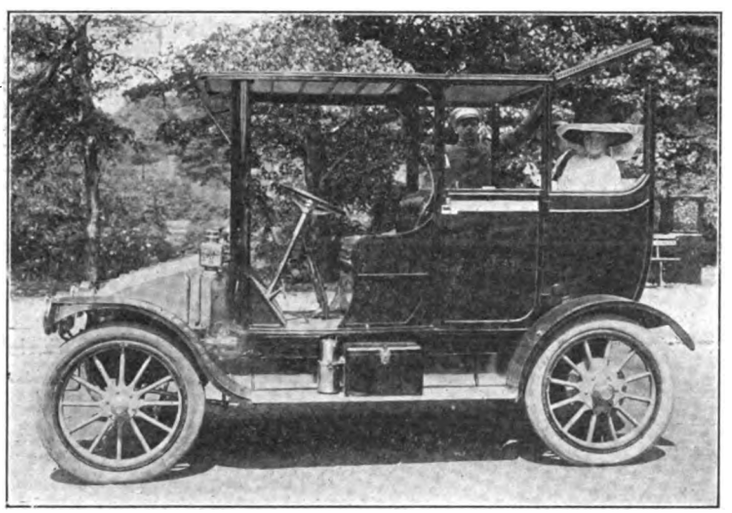
TWOMBLY QUICK CONVERTIBLE BODY FULLY ENCLOSED

The most spectacular point about the car is its convertibility. At will it may be used as a four-door double limousine, an ordinary limousine, an unenclosed canopy car, a landaulet with demi roof, or an open car with standing roof over the driver's seat. The four conversions may be made within an extraordinarily short space of time by a simple process of dropping the windows and folding roof and corner posts.

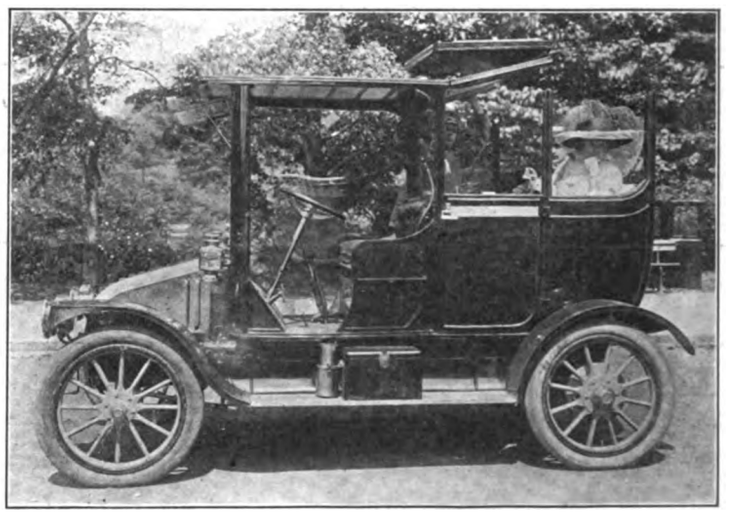
The second unusual point about the machine, and the one which is most revolutionary in its nature, is the construction of the power plant. By an ingenious combination of dovetailed tenons and pipe and shaft connections, the entire plant is so contrived that it may be withdrawn from the front of the car for purposes of repair or replacement; the dismounting of the motor alone or of the motor and change gear unit occupying an astonishingly short time. Indeed, during the aforementioned demonstration at the Automobile Club the complete operation of removal and replacement was accomplished in three minutes on several occasions, and once or twice in the almost incredibly short space of two and one-half minutes.

But it would be an injustice to the designer of the new vehicle to let it be supposed that the convertible body and demountable power plant are its only unusual points. Indeed, the entire machine reflects the result of six years independent effort in motor car construction. The motor and change gear are original, apart from their special feature of interest, and many of the structural incidentals are obviously contrived for the specific purpose to which they are applied.

Turning to the body construction in detail, the accompanying illustrations afford a good idea of the method of its operation. The outward appearance of the complete vehicle is not suggestive of any unusual properties; it is well proportioned, rather narrow, as becomes it considering the nature of its lines; and with the sloping hood and dashboard radiator, it is decidedly pleasing. The sides of the forward compartment, carrying the doors and the drop windows, are secured to the body frame by cam locks at the top and by means of dowel pins at the bottom, which fit into sockets let into a ledge which runs outside the seat line. The removal or replacemen:

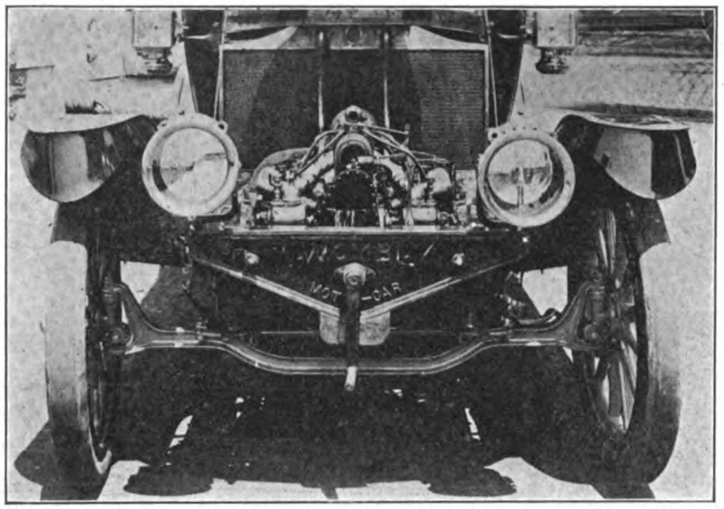


SHOWING FIRST OPERATION IN FOLDING ROOF

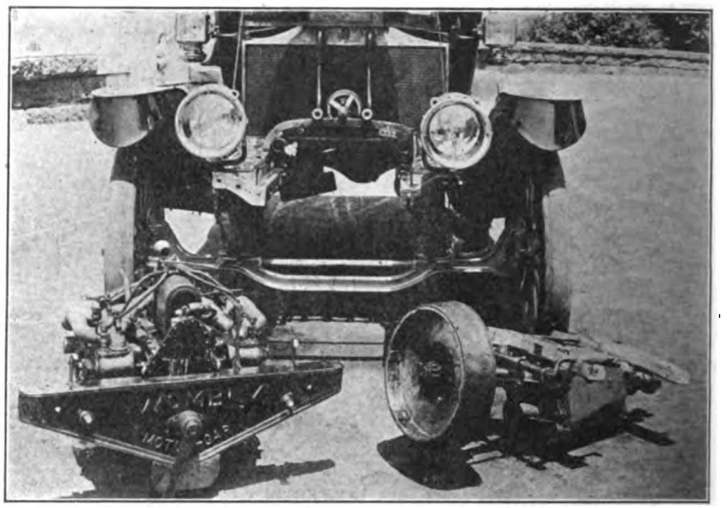


SECOND OPERATION IN TWOMBLY BODY CONVERSION

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TWOMBLY CAR SHOWING MOTOR IN POSITION



VIEW SHOWING POWER PLANT DISMOUNTED

of the front enclosure thus is a matter of seconds only.

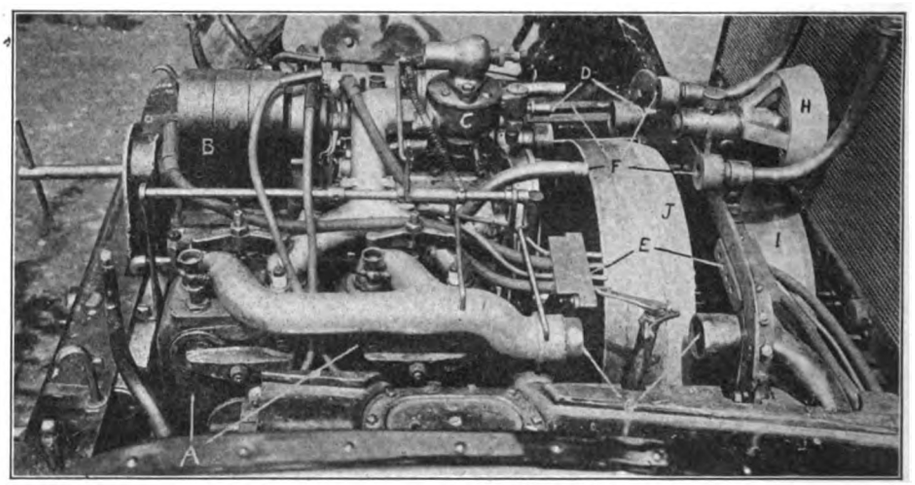
When fully enclosed, the rear compartment is water-tight, yet properly ventilated and heated by means of special devices. If required, the windows, of which there are two on either side, one in the front and one at the back, may be dropped into the casings, leaving the vehicle entirely open at the sides. The supports for the roof which remain are four in number, two being at the rear corners and two just back of the doors. The two uprights which form the casings for the door sashes are folded inward against the doors when the windows are dropped. The two posts at the back of the front seat, and the dash uprights are permanently fixed.

By releasing a pair of cam locks at the rear corners of the roof, one section may be folded over, leaving the rear quarter of the car open. At the same time the two rear corner posts fold down toward each other, their ends meeting in a dowel fastening as they reach the back of the seat, where they form an ornamental moulding. It will be observed that all this is not accomplished without a deal of ingenuity, the skill of the designer being revealed to a notable degree in the construction of the hinges for the rear corner posts. These are finished on the ball and socket principle, so that when collapsed they form a smoothly rounded corner. At the same time the stress is carried in such a way that there can be no abrasion of paint; while, when the posts are erect, the outer shell of the joint acts as a tenon to hold the upper section rigid.

By a similar process of folding, the forward section of the roof likewise may be disposed of and the supporting posts turned down out of sight. The rear portion of the vehicle then remains entirely open, having lines suggestive of torpedo construction, while the forward section, with its standing roof, stays undisturbed. In the construction of the body apt use has been made of pressed steel and aluminum in framing and covering the lower section and also in building the folding uprights. The rear seat affords ample accommodation for two passengers, while a drop seat, facing to the rear, accommodates two more. In addition there is room for a fifth passenger alongside the driver. In accordance with the most generally approved town car practice, the driver's place is on the left, with the controls placed in the center of the foot board. In every other respect the controlling arrangements are of standard pattern.

The demountable feature of the power plant, which is the one in which the producer is most interested just at present, is obtained by an application of the simple idea of rendering the two units, the motor and change gear, slidable on the sub frame. Save for the method of affecting the necessary connections for power transmission and for piping the engine, this scheme is very easily accomplished. Therefore it is the automatic coupling arrangements which comprise the essentially novel point in the system.

By releasing two special lock nuts on the front board of the frame, the motor unit is released from the frame. It then may be slid forward on its supporting rollers, and lifted out of the chassis. Before drawing it out, however, it is necessary to release the gasolene coupling, which is done by giving a quarter-turn to a special breech-block union fitting, and to unhook the motor control connections; water, exhaust and electrical connections are automatically disconnected. The engine auxiliaries—carburetter, magneto, lubricating device—are permanently mounted on the motor.



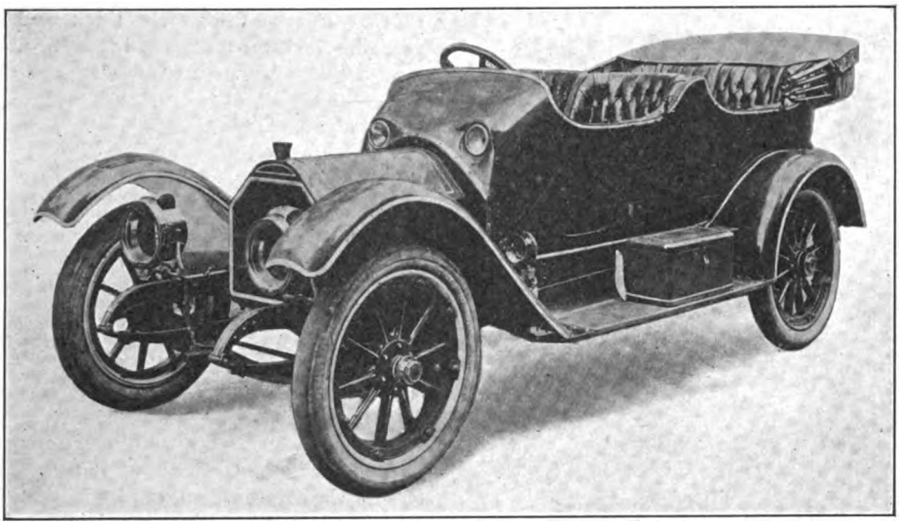

ENGINE PARTLY REMOVED SHOWING AUTOMATIC COUPLINGS

The manner in which the uncoupling of the motor is effected automatically is shown by the accompanying picture. The location of the cylinders is indicated at A, and of the magneto and carburetter at B and C, respectively, while the gasolene connection is shown at D. By means of four plug contacts E, the necessary connections for the Bosch dual ignition system are broken when the motor is drawn forward, while the telescoping water and exhaust unions F and G are disconnected

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from the corresponding pipes in a similar way.

To prevent leakage in the water line, special construction has been resorted to. The female ends of the unions are lined with rubber cups, specially moulded for the given size of pipe, and held in place by large knurled nuts, which are tightened by hand. To prevent overflow from the radiator outlet, an original form of valve has been devised, which closes automatically when the engine is moved from its normal position, but which is opened by a tappet carried by the motor as soon as the motor is returned to its proper place.



NEW "DOLPHIN" BODY ON 15-30 HORSEPOWER STEARNS

The fan drive is frictional from the fly wheel, the cone pulley H, which is spring-retained and self-adjusting, coming into contact with the fly wheel J as soon as the motor is in place. The clutch cone, I, carries a taper roller bearing on its forward end, which automatically engages a corresponding socket on the rear end of the crank shaft, thus aligning the driving system. The motor controls are regulated through the pillar K.

The change gear, which is of the selective, sliding pinion type, is drawn away from its position and returned without serious complication. Both the pedal and lever connections are effected automatically, and the drive to the propeller shaft is accomplished through a crab claw coupling, which permits flexibility in that connection as well as affording ready means for releasing the gearset upon occasion.

Under any other circumstances, the motor itself would come in for an unusual amount of attention. It is of the opposed type, with 5 by 5 inch cylinders, and takes the A. L. A. M. rating of 40 horsepower. In respect to the L-shaped cylinders, with valves placed on top, the optional use of two sets of plugs, and the transverse method of mounting in the chassis, there is nothing so very striking about it. Its size, however, is extraordinary, since its outer dimensions are only 17 by 17 by 8 inches; while its weight is but 206 pounds, including the 60-pound fly wheel, or something like 5 pounds per horsepower.

The peculiarity of its construction lies in the use of the principle of the Scotch yoke in place of the ordinary connecting rod arrangement. This system does away with two crank throws, besides eliminating the connecting rods, and reduces both the length and width of the engine. The opposing pistons are formed in a single piece, with a vertical guide slot between the heads. Made a close sliding fit in the guides is the outer race of a roller bearing, which is mounted on the crank throw, and takes the place of the ordinary "big end" bearing. Two of these double piston and roller bearing groups suffice for the four cylinders, forming an arrangement which Mr. Twombly is pleased to term the equivalent of a two-cylinder double-acting motor. That it is rather a stretch of definition to term it strictly a double acting motor, however, probably most engineers will agree, and even Mr. Twombly himself is understood to favor some more accurate appellation.

Gravity cooling circulation, automatic lubrication with filtered return to the pump well and interchangeable valves are features which are in line with present practice. The motor is said to develop more power than the standard rating calls for, and to be entirely satisfactory in point of flexibility. So far as could be judged from the brief demonstration on Monday, it runs smoothly and well.

### "Dolphin" Body the Latest Fancy.

Various fancies have been entertained in regard to the design of automobile bodies, and the introduction of the marine suggestion by no means is the novelty this year or last that it might be supposed. For example, there was that early classic, the seashell body, which graced the ingenious and radical Charles E. Duryea's three-cylinder, three-wheeled, single lever marvel of a decade or so ago. The torpedo form with its numerous modifications has acquired a deal of present prominence. It is a form in which are combined several noteworthy advantages—though by many it is held that beauty of line is not among them—and which is very much in the public eye just at present.

Very "torpedoesque," though decidedly original, enter now the "Dolphin" body. From the accompanying illustration, it will be gathered that the body takes its name from the very vague resemblance to the amphibian for which it is named. Its novelty lies in the high extension of the dash, back and sides, coupled with the dropping of the rails over the tops of the doors and along the arm rests. The shape of the mud guards is very striking, if a trifle grotesque, while the countersinking of the dash lamps is what lends to the car its peculiarly suggestive aspect.

The body is the work of the J. E. Demar Co., of New York City. It is shown mounted on a 15-30 Stearns chassis.

### Used a Syphon Fire Extinguisher.

Suggesting an important use to which those portable wine cellars that are designed to be carried on automobile running boards may be put, the experience of George Deiss, a resident of Patterson, N. J., reflects both promptitude and presence of mind. Deiss while driving along 16th avenue last week suddenly discovered smoke issuing from the bonnet of his car. Finding that the carburetter was on fire, he rushed to a neighboring store and bought a bottle of selzer water, with which he succeeded in extinguishing the flames before serious damage was done to the car.

### Proper Drainage Important for Garages.

It is by no means an idle suggestion to indicate the importance of arranging for proper drainage in laying down garage floors. It not infrequently happens, even with cement flooring which has been very carefully laid, that a certain amount of sagging will occur—just sufficient, in fact, to permit pools of water or oil to be formed. The effect of such accumulated moisture upon the tires of cars left standing in it is exceedingly destructive.

### How to Loosen Encrusted Screws.

Acccumulator terminals which are badly corroded can be loosened by the expedient of gripping them firmly with a pair of hot pliers until the screws are pretty well heated. The effect will be to expand the metal and at the same time to assist in loosening the encrustation which binds them.

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## JERSEY MOTORISTS "RESOLUTE"

### Reciprocity the Watchword—Frelinghuysen is Worried—Commissioner Smith Talks to A. C. A. Members.

"Joe" Frelinghuysen, the New York insurance man, whose desire to become governor of New Jersey has become acute and full blown, isn't feeling thoroughly happy these days. It is reported that Joe carried his desire, neatly wrapped in tinfoil, to the Republican State Committee of New Jersey and that it immediately curled up at the edges when exposed to view. The astute committeemen are said to have told their ambitious occasional fellow citizen that there were too many yellow anti-automobile streaks in his tinfoil package to win votes and that it were better that he lie low and remain content with his senatorial seat.

At any rate the committee last week adopted a resolution recommending that the state convention place the republican party on record as favoring the enactment by the next legislature of an automobile law establishing reciprocal relations with other states.

This in itself was a cruel slap at the New York insurance man, who occasionally spends a night in New Jersey. Frelinghuysen did not accept the decision philosophically. He wants the governorship and wants it badly, and despite the slap on the wrist he is still gunning for the nomination and apparently will seek to arouse more anti-automobile sentiment in his effort to get it. As the originator of "hold-up" automobile legislation, he has decided to remain "true to Poll." He is opposed to the establishment of reciprocal relations. In making his bid for the Republican nomination, he says, among other things:

"Experience shows that revenues now derived from automobiles are not sufficient to repair the damage caused by them to our roads. Should we relieve residents of other states from the payment of any license our revenues would decrease, the use of our roads would increase, and as a necessary result, unless the automobilists of this state were called upon to pay a higher license, or unless the people at large were called upon to pay more for road repair than they do now, our roads would deteriorate and they would soon lose the reputation which they now enjoy. No change should be made until the people at large show a willingness to pay more than they now do for the maintenance of the roads and until they express a desire to grant to automobile owners of other states the free use of our roads."

Meanwhile a lot of genuine New Jerseymen who vainly have expressed such a desire are prepared to deal with Frelinghuysen and his kind, of whom they have been made victims. The Associated Automobile Clubs are preparing to make good their promise to "go into politics" and to support their friends and undo their enemies. The board of trustees of the New Jersey Automobile and Motor Club, of Newark, has fired the first gun of the campaign by adopting the following resolution defining the attitude and intentions of the automobilists of the state:

Whereas, The New Jersey Automobile and Motor Club has repeatedly placed itself on record as favoring more liberal automobile laws; and

Whereas, The existing state known as the Frelinghuysen law, with its amendments, has caused our neighboring states to pass retaliatory measures; and

Whereas, The business interests of the state are being affected, tourists of other states are being barred from entering our borders until they have secured a license for which compensation is exacted; and

Whereas, Because of this proviso our own citizens are required to take out a license and pay the full resident license fees at great cost and inconvenience before they can enter the borders of some of our neighboring states; and

Whereas, Approximately $400,000 of the reported $500,000 to be expended by this state in the repair of improved roads during this year is received from the license fees fom motorists; therefore be it

Resolved, That this club shall in order to protect the good name of our state use its influence in the coming election to elect those men to office regardless of party who shall pledge themselves to the unqualified support of the motoring interests in securing a "square deal" at the next session of the legislature.

Resolved, That this club shall demand the following amendments:

1. Reciprocity, namely that a reasonable use of our highways for a limited period of time be given to the residents of the neighboring states without expense to them and without requiring them to take out a license, provided those States give reciprocal privileges and that there are no restrictions in regard to non-resident licenses for owners or chauffeurs, lights, speed and special regulations to conflict with New Jersey.
2. That the law which was recently passed requiring all vehicles to carry lights shall be re-enacted and a minimum penalty fixed, said fines to be turned over to the state treasurer, the money so raised to be spent on the repair of the improved state highways, but not upon the building of new highways.
3. That the horsepower of cars for license purposes shall be rated A. L. A. M. rating and not upon the maker's rating.
4. That the twelve and fifteen miles per hour clauses in the present law, which permit prejudiced officials to use their office for the persecution of motorists, be rescinded.
5. That in consideration of the large sum received from license fees by the state that automobiles be exempted from further taxation and that the fees so collected shall be paid in lieu of any and all taxes.

In order to help "Joe" out in his predicament, J. R. Smith, Commissioner of Motor Vehicles, came over to New York to tell the unbelieving Thomases of the Automobile Club of America how kind and generous New Jersey always has been to the motorist, how lenient it is when he exceeds the speed limit, how the odious speed traps have been abolished, and how happy and satisfied the motorists of other states ought to be to be permitted to enjoy to the full the benefits of Frelinghuysenism. Strange to say his address did not rouse any noticeable enthusiasm, because he only reiterated the old well-worn statements of road cost and expenses. Among the fifteen members present were a few dyed-in-the-wool Jerseyites who applauded everything he said, but there were others (and they outnumbered the Frelinghuysen-Smith-Morgan faction), who gave Mr. Smith several exceedingly hard nuts to crack. Personalities flew thick and fast, and the lecture threatened to degenerate into a lively word-batttle, when the chairman called attention to the fact that it was half past ten o'clock and adjourned the meeting.

### High Speed Not Always Imprudent.

Judge Carl Foster, of Bridgeport, Conn., has created a small furore in his part of New England by declaring that, notwithstanding the letter of the law which states that a speed in excess of 25 miles per hour is prima facie evidence of recklessness, under certain conditions a speed of 35 miles an hour may be called "careful and prudent" driving, while under other conditions a speed of less than 30 miles may be regarded as "reckless, imprudent and improper." This decision is in line with the claim made by the no speed limit advocates, but it has, nevertheless, aroused no little indignation.

The judge's decision was rendered in the case of W. F, Brainard, of Glen Ridge, N.Y., who was arrested for driving at the rate of 35 miles an hour along Fairfield avenue, Bridgeport. At the hearing it was proven that there were no pedestrians on the sidewalk or in the roadway at the time of the drive, that no trolley cars were in sight, and that the only traffic consisted in two automobiles which were proceeding in the same direction as his own car. These two cars, being "test" cars, were driven at the rate of 25 miles per hour, and when Brainard passed these cars he was arrested. Judge Foster decided that although the legal speed limit had been exceeded, the absence of traffic and the clear, straight road rendered a higher speed excusable.

A few days later when another motorist, Arthur J. Moulton, of New York, was arrested by the same policeman on the same avenue for driving at the rate of 30 miles an hour, Judge Foster fined him $15 and costs, declaring that in this case there were pedestrians on the street and considerable traffic was going on, and that therefore the accused was guilty of driving which was "reckless, unreasonable and improper." The judge qualified his decision by a lengthy opinion on the speed law, which is being kept in the court for reference in future speed cases.

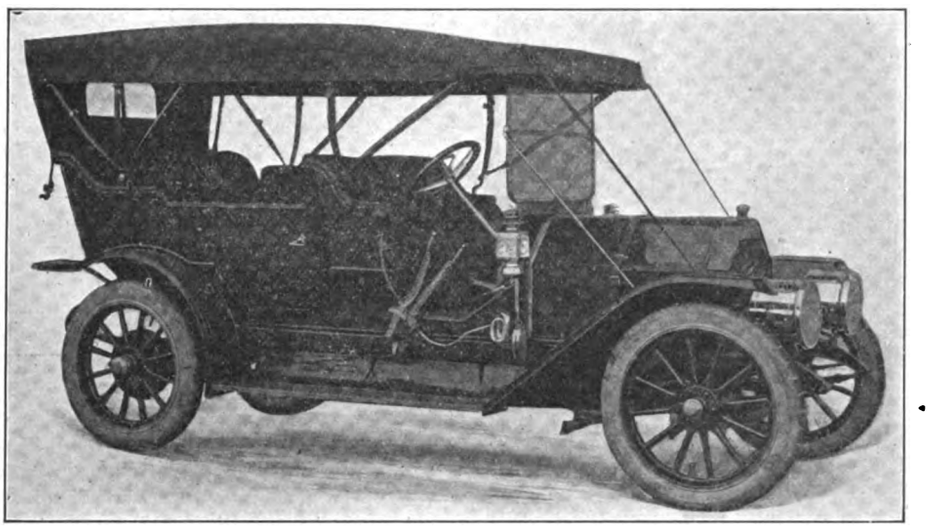
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## PULLMAN TO CONTINUE ITS TRIO

**New Models Adhere Closely to Previous Practice—Slight Changes for "K" and "M" Gets New Equipment.**

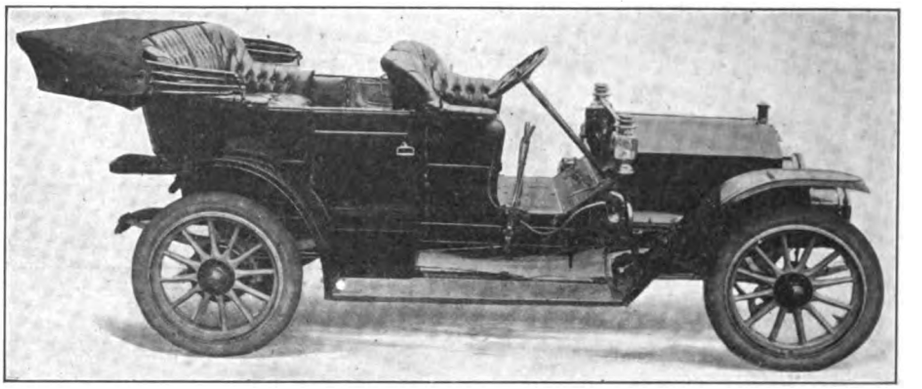
For several years the Pullman line, which is made by the Pullman Motor Car Co., of York, Pa., has been distinguished by an earnest clinging to certain fixed principles of design. Remaining but little altered, the same series of three models is to be continued through another year of production, according to an announcement which just has been made. And it almost goes without saying, that the three chassis correspond closely in general style of construction as they have in the past.

The three new models, "K," "O" and "M," as they are designated, will be distinguished by the suffixed "II" placed after the distinguishing letters. The first named car is of 35 horsepower rating, the second of 30 and the third of 50. Four cylinder motors of original delineation and build, selective sliding change gears, shaft drive and other common features will be retained. Of sundry changes which have been made, none is of the sort which may be termed radical, while the alterations affect the model "K" more especially than either of the others.



MODEL "M-II" PULLMAN 50 HORSEPOWER TOURING CAR

The standard form for the car in question is the five passenger touring arrangement. The latest specifications call for a 2-inch increase in wheel base, increasing the distance between treads from 112 to 114 inches. This affords more leg room in front and increases the easy riding qualities of the forward part of the car. An alteration in the shape of the doors to give a more nearly straight line effect is a more apparent change, as is a redesign of the steering column, which now has a larger brass housing. The changing of the shape of the bottom pans of the motor, the adoption of new style foot boards, and the raising of the headlight brackets, are other slight alterations.

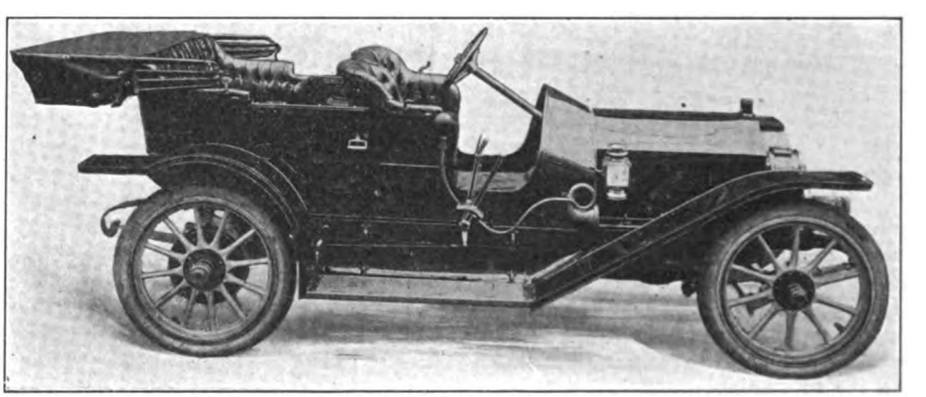


PULLMAN MODEL "K-II" 35 HORSEPOWER TOURING CAR

Model "O," which was exhibited for the first time during the last show season, remains practically unchanged. It may be noted in passing that it is now quoted with 109-inch wheel base, which is a trifle more than the original specifications called for, and that it is now specified as having a leather faced cone clutch with spring inserts, instead of cork inserts, which formerly were employed. It is built as a touring or small tonneau car, and also as a two or three passenger runabout.

Save in the matter of wheel base, where an increase has been made from 124 to 127 inches, model "M" will be much the same in form as it is at present. The new series "M" car will not be ready for delivery for a few weeks, and in the meantime its design has been overhauled and opportunity found for a few minor alterations. These changes, coupled with improvements in finish, it is intimated, may cause its price to be advanced somewhat. In general, however, it will still conform to the Pullman standards. Touring, small tonneau and limousine styles will be put forth.

The leading characteristic of the Pullman motors is the method of constructing the cylinders. These are of T-head form, meaning that the valves, which are interchangeable, are placed on opposite sides and driven from independent cam shafts. The original feature about them, however, is the use of open-ended water jackets with abutting flanges, the result being that the water jackets are rendered practically continuous from end to end of the motor, while the entire cylinder group is given much the same rigidity which obtains with the block method of casting. This arrangement is employed on the "K" and "M"



PULLMAN MODEL "O-II" 30 HORSEPOWER TOURING CAR

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cars, with individually cast cylinders. On the model "O," however, the cylinders are cast in pairs.

Liberal bearing surfaces, enclosed gears, constant level pump lubrication, and magneto ignition are standard features. On the model "O" car, the Bosch dual ignition system is employed, but the other two engines have double ignition with Bosch magneto, dry cells, coils and distributor. The cylinder dimensions of the three models, "K," "O" and "M," are respectively 4½ by 4¾, 4 1-32 by 5, and 5¼ by 6.

Timken full floating rear axles are used on the 35 and 50 horsepower chassis, and semi-elliptic front and three-quarter elliptic rear springs on the 30 and 50 horsepower models. Double acting hub brakes are common to all three. The two smaller cars have three-speed change gears, and the largest of the three one giving four speeds, with a "geared up" fourth. The tire equipments for the three, in the order given above, are as follows: 34 by 4, 34 by 3½, 36 by 4 by 4½. The equipment for all models is uniform, namely, tools, jack, pump, repair kit, gas lamps, generator, oil lamps and horn. In addition the 50 horsepower model is sold with a top included in the standard equipment.

### "Under Three Flags" Car in Mexico City.

The long run of the Flanders "Under Three Flags" car, which left Quebec June 5, ended under the shadow of Popocapetl in Mexico City on August 3d. The car pulled into the city covered with mud after a fast day's run, the home stretch of which comprised the first good roads which have been found within the republic. A somewhat dramatic feature of the finish was the fact that the car was piloted to the finish by W. J. Lane, the regular driver, who, in spite of severe illness which has afflicted him all through Mexico, has insisted against the advice of the physicians, on accompanying the trip to its end. Lane traveled ahead of the car through the greater part of Mexico, but was assisted to the wheel this morning and remained there.

A big parade of E-M-F "30's," Flanders "20's" and other cars met the "Under Three Flags" outfit near the city limits and the triumphal entry was one long to be remembered. A large and popular demonstration occurred at the St. Charles IV monument, which was passed en route to the garage of Mohler & DeGress. The Flanders is the first car to enter Mexico from Laredo and the first to traverse a large share of territory which was traveled for there to the end of the trip. The total distance for the trip was 4,127 miles, but a little longer than the shortest by rail between the two points.

### Lozier Adopts Long Stroke Motor.

Two styles of chassis will be produced by the Lozier Motor Co., New York City, during the coming production season, one being four- and the other six-cylinder construction. In general, the massive and original design of the models will be retained. But sundry alterations of a distinctive nature have been made. Among them are the adoption of the long stroke form of cylinder.

The dimensions of model "51," the new six, are 4⅝ by 5½ inches, and of model "46," which is the four-cylinder car, 5⅛ by 6 inches. The T-head, paired cylinder construction, automatic lubrication, complete double ignition, and annular ball bearing crank and cam shaft mountings will be retained. The multiple disc clutch, four speed gearset, enclosed in a one-piece gear box, shaft drive and full floating axle construction is retained, but an alteration has been made in the method of coupling the radius rods.

Special provision for adjusting the brakes, semi-elliptical front springs and three-quarter platform rear ones, a compression releasing device working on the exhaust side of the motor, and an improvement in the construction of the starting crank, and adjustable cup and cone front wheel bearings are features given special prominence in the new models.

As the chassis are of the same size for both models, the full line of bodies applies to both models. The "Lakewood" model, so-called, has a new form of combined side door and chauffeur's seat, and other improvements have been made. The equipment is complete save for tops and wind shields, and includes specially designed lamps, with oil-electric combinations for the dash and rear members.

### Huge "Nobby Tread" Tire in Detroit.

So big that a man can stand upright in its large diameter, a monster Morgan & Wright nobby tread tire has been added to Detroit's many automobile wonders. The




tire was produced at the Morgan & Wright factory in Detroit in time for public display during the recent Elk's convention in that city, and by reason of its huge size and unusual appearance, as shown in the accompanying picture, attracted no little attention from the visitors, a good proportion of whom were motorists. Being on so large a scale, the form and placing of the rubber tread knobs is easily seen at a glance, indicating the character of the proportional knobs on the nobby tread tires of normal size.

### "Green" Operator Causes Big Fire.

Caused by the explosion of a vulcanizing machine, the big garage at Easthampton, L. I., owned and managed by W. Halsey, was destroyed by fire early Wednesday morning, August 10th. Damage said to exceed $40,000 was caused. Twelve automobiles were burned, the adjoining general store ruined, and one man burned so severely that he will lose his life. P. Collins, operator of the vulcanizing machine, was inexperienced, and due to his clumsy handling of the machine, the latter exploded, setting fire to his clothes. A large touring car with brakes locked blocked the entrance to the garage, and before the machine could be wheeled out of the way the flames had gained such headway that the rescuers had to flee for their lives. Part of the loss is covered by insurance.

### Exploding Gasolene Destroys Garage.

Flames destroyed the garage of John Burdick, at Troy, N. Y., last Saturday night, causing a damage of $25,000, only $15,000 of which is covered by insurance. The origin of the fire was unusual. Repairing one of his cars, Burdick's hand slipped and the wrench he held struck the gasolene tank and opened a small leak. As there was but a small amount of gasolene in the tank, no attention was paid to the leak. A small kerosene lamp, standing in the rear of the garage, where repairs were made, ignited the fumes of gasolene when they had filled the whole lower half of the building and caused an explosion. Five new cars were totally destroyed, while the entire building was burned to the ground.

### To Prevent Short Circuiting of Ignition.

When ignition accumulators of the celluloid cased type are employed, it is a good plan to take advantage of their transparency once in a while by holding them to the light in order to observe whether any of the paste has begun to loosen from the plates or whether the plates have buckled. If this proves to be the case, the affected cells should be opened and new plates put in, or the offending bits of paste removed, if renewal is not practicable at the time, as otherwise there is strong likelihood of short circuits occurring which will be exceedingly destructive.

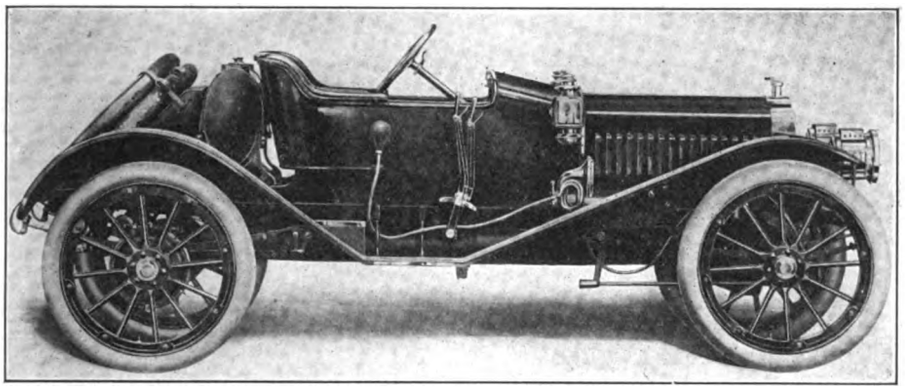
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## BUILT TO KEEP OUT THE DUST

### Protective Feature of New Maxwell Models Due to Torpedo Pattern—Line Varied and Well Equipped.

It has been announced that in producing its new line of cars the Maxwell-Briscoe Motor Co., of Tarrytown, N. Y., will put into the market four different chassis, including one of 25 horsepower rating, which is entirely new, and an increased array of body mountings. The new bodies reflect the spirit of the times in introducing the torpedo form and the straight line effects which, because of their real worth, are growing to be better appreciated each year.

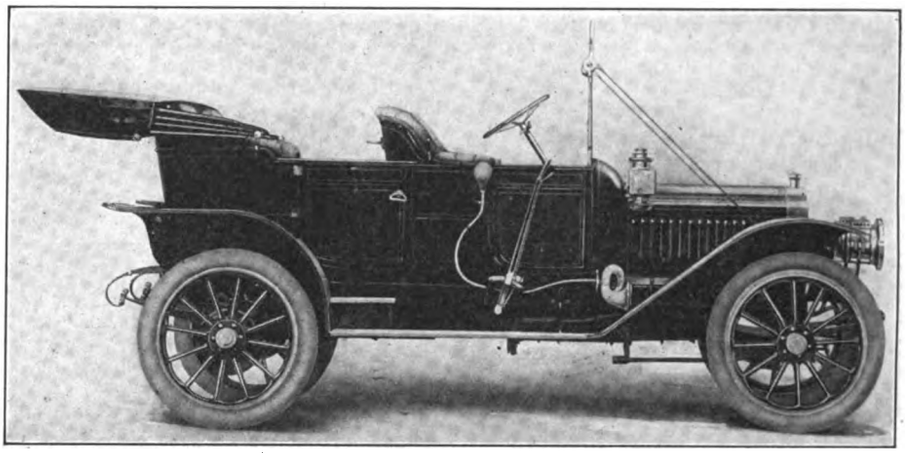
The accompanying illustrations supplement the brief outline of prices and specifications recently printed in these columns and afford an indication of the fact that the new Maxwell line is to be rather strikingly "a la mode," so to speak. The most "skittish-looking" member of the line is the new "GA" roadster, which is mounted on the 30 horsepower chassis subject to certain appropriate and obvious alterations of the control mechanism. As the picture shows, the car is of the racing roadster type, with oval fuel tank back of the single seat and storage trunk and tire rack in the extreme rear. The body is of the single-seat torpedo pattern, with long skuttle dash extension, flat surfaces and metallic construction.



MAXWELL "GA" TWO PASSENGER TORPEDO ROADSTER

Another and more conservative member of the 30 horsepower group is the model "EA," also illustrated herewith, which is graced with front doors, a concave dash and straight line moulding effects. This is a five passeuger machine, which is shown with the top and wind shield, which form its complete equipment, although these two items are listed as extras. The motor of this and the model previously mentioned is of the 4¼ inch "square" dimensions and is equipped with dual ignition, the magneto being a part of the regular equipment. Three-speed sliding change gear, shaft drive, 110 inch wheel base, 34 by 4 inch quick detachable tires, semi-elliptical front and three-quarter rear springs, are other leading specifications.

Model "GA," which is another version of the 30 horsepower model, is a close-coupled effect with four doors, skuttle dash and other up-to-the-minute features. It is a very neat little car with a decidedly utilitarian aspect. The same applies in a general way to the new model "I" touring car, which is the standard 25 horsepower offering. This machine is equipped with a four-cylinder, 4 by 4 inch motor, with dual ignition, three speed sliding change gear, 104 inch wheel base and 32 by 3½ inch "Q. D." tires. As becomes its smaller size, it is more compact in appearance than the "GA" car, but with its concave dash, close seating and shapely lines, it is none the less pleasing and practical in appearance.

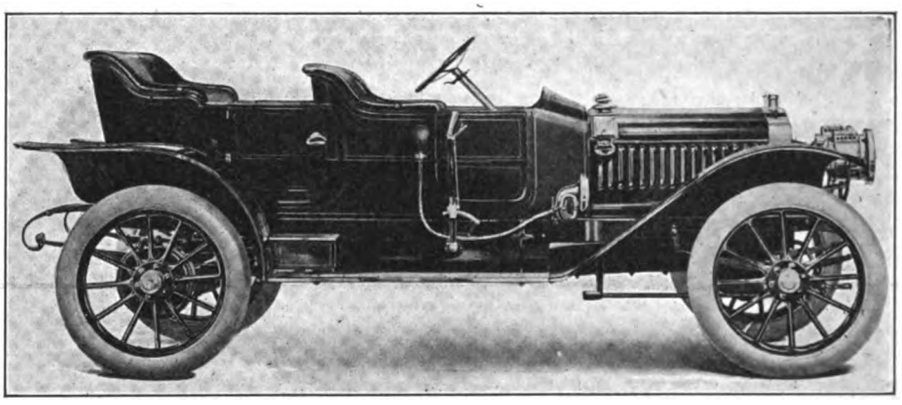


MAXWELL MODEL "EA" 30 HORSEPOWER TOURING CAR

Models "S-II," "G-II" and "Q-3-II," the latter being the standard 22 horsepower model, are produced in the more familiar style of touring body, without front doors, but otherwise with the power plant and accessory equipment which is included with the remainder of the line. The model "Q-II" and the little "AB" car are made as two passenger runabouts. The latter, it should be added, is the two-cylinder, 14 horsepower "baby" member of the line. Despite its reduced size and power, however, its standard equipment, including dual ignition, is the same as that which is specified for each of the larger machines.

### New Departure Builds Six Cylinder Car.

Six cylinders are to be a feature of a new car which the New Departure Mfg. Co., of Bristol, Conn., is finishing for the personal use of Hon. Albert F. Rockwell, the president of the company. The machine is to be of high horsepower, and may serve subsequently as prototype for one of the company's models.



MAXWELL MODEL "GA" 30 HORSEPOWER CLOSE-COUPLED

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## READY FOR COMMERCIAL TEST

### Philadelphia-Atlantic City Truck Entries Number Sixty-Five—Ton-mile Cost of Trip to Determine the Winner.

If no faint hearts develop between this writing and Friday morning of this week, more than three score entrants will undertake the two days' reliability contest for commercial vehicles, which is scheduled to start from Philadelphia on the course to Atlantic City and return at half past eight o'clock. The official list of entries includes 65 names, and covers 31 different makes of car. Twenty-three of the entries have been made by the manufacturers or their agents.

By a simple process of division, the Philadelphia newspaper, which is promoting the contest, proposes to discover exactly how much it costs, per ton mile, to move freight over the highway to Atlantic City and back by automobile. In the case of the gasolene machines, the total fuel and oil consumption will be used to ascertain the cost, figuring gasolene at 16 cents a gallon and oil at 50 cents a gallon. Electrics will be charged according to energy consumption on a basis of 4 cents per kilowatt. In the case of each machine, this gross cost of the trip will be divided by the net load weight of the vehicle to determine the winning score.

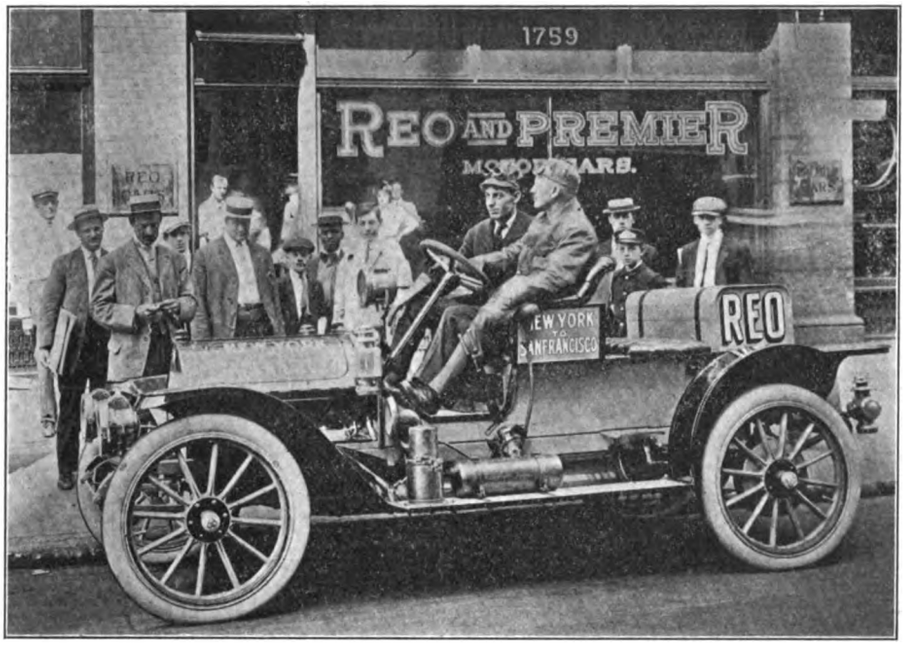
Observers will be carried, and the rules relating to the conduct of the competing vehicles, the checking at the single control, which is at Hammonton, and the weighing-in and scoring formalities, follow the general lines of the standard endurance rules. The complete list of entrants follows:

Manufacturers' Division.

Class A (1½ tons capacity and less).

Entrant and car.

Randolph Motor Car Co., Randolph.
Commercial Motor Car Co., Chase.




WHITMAN AND HIS REO READY FOR LONG TEST

### Will Try for Transcontinental Record.

With the avowed intention of beating his own previous record of 15 days 2 hours 12 minutes for the trip from New York to San Francisco, L. L. Whitman, in a Reo "30" started from the New York branch of R. M. Owen & Co., at 12:01 Monday morning, August 8th. He was accompanied by E. I. Hammond, who is to take turns with Whitman in piloting the car. The present tryout for a new record is to be a night and day continuous run, the two drivers alternating at the wheel. Three mechanics form the remainder of the party. Whitman has made the same trip in 1903, 1904 and 1906, the run in the last named year also being a night and day trip, with five men from the factory assisting him in driving the car.

Whitman reached Buffalo Monday evening, and, following the Erie, Cleveland, South Bend route, entered Clinton, Iowa, at 10:55 a. m. Wednesday, making the run from New York (1,196 miles) in less than 59 hours. He is 12 hours ahead of the 11 days schedule laid out for the trip.

Commercial Motor Car Co., Chase.
Commercial Motor Car Co., Chase.
Franklin Motor Car Co., Franklin.
Martin Carriage Works, Martin.
Martin Carriage Works, Martin.
Torbenson Motor Car Co., Torbenson.
International Harvester Co., I. H. C.
International Harvester Co., I. H. C.
Buick M. C. Co., Buick.
Buick M. C. Co., Buick.
Finnesey and Kobber, Atterbury.
Rapid Motor Vehicle Co., Rapid.
Hart-Kraft Motor Truck Co., Hart-Kraft.

Class B (between 3001 and 5999 pounds).

Garford Motor Truck Works, Garford.
Edgar W. Hawley, Grabowsky.

Class C (three tons and above).

Kelly Motor Truck Co., Frayer-Miller.
Schleicher Motor Vehicle Co., Schleicher.
Standard Gas and Elec. Power Co., Standard Gas-electric.
A. T. Gardiner, Gramm.
Benz Import Co. of America, Gaggenau.
Packers Motor Truck Co., Packers.

Private Owners' Division.

Class A (1½ tons capacity and less).

Strawbridge & Clothier, Autocar.
John Wanamaker, Autocar.
Bailey, Banks & Biddle, Autocar.
Bailey, Banks & Biddle, Autocar.
Bailey, Banks & Biddle, Stoddard-Dayton.
Lindsay Brothers, Inc., Autocar.
Consolidated Rubber Tire Co., Autocar.
Coca Cola Company, Maxwell.
Freihofer Vienna Baking Co., Chase.
Cluett, Peabody & Co., Autocar.
Cluett, Peabody & Co., Autocar.
E. Bradford Clarke, Autocar.
Fritz & La Rue, Autocar.
Wright, Tyndale & Van Roden, Rowan.
Michael Del Collo, Autocar.
Eshelman & Craig, Autocar.
Gurnse Butter Co., Autocar.
Gurnse Butter Co., Autocar.
J. E. Caldwell & Co., Autocar.
A. F. Bornot Brothers Co., Autocar.
A. F. Bornot Brothers Co., Renault.
Theo. F. Siefert, Autocar.
J. S. Ivins Son, Autocar.
Kellogg Toasted Corn Flake Co., Cartercar.

Class B (3001 to 5999 pounds).

J. B. Van Sciver Co., Reliance.
Suburban Auto Express Co., Commercial.

Class C (three tons and above).

Shane Brothers & Wilson, Mack.
Baldwin Locomotive Works, Saurer.
Baldwin Locomotive Works, Saurer.
Baldwin Locomotive Works, Saurer.
John Wanamaker, Packard.
J. B. Van Sciver Co., Reliance.
Gimbel Brothers, Alco.
Gimbel Brothers, Alco.
Fleck Brothers, Frayer-Miller.

Electric Vehicle Division.

Class A (1½ tons capacity and less).

John Wanamaker, Commercial.
Bergdoll Brewing Co., Commercial.

Class B (3001 to 5999 pounds).

Bergdoll Brewing Co., General.
John Wanamaker, Commercial.
American Brewing Co., Commercial.

Class C (three tons and above).

American Brewing Co., Commercial.

### Marmon Retires from Track Racing.

The Marmon team, Ray Harroun and Joe Dawson, will be seen no more in track competition this season and perhaps never again. The men will apply themselves solely to road racing. Nordyke and Marmon's retirement from track racing is due not particularly to opposition to that form of sport but to the lack of results, which are almost wholly of a local nature and rarely of national value.

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## PROVIDING FOR THE SPARES

**Engineer Explains How Tools and Parts Should be Carried on the Car—Demountable Rim Holders Described.**

That automobile manufacturers well might devote some little thought and effort to the contriving of suitable methods of stowage for the spare parts, tools and supplies that the average motorist feels impelled to carry in his car at all times, was the natural inference to be drawn from the recent presentation of the subject be-

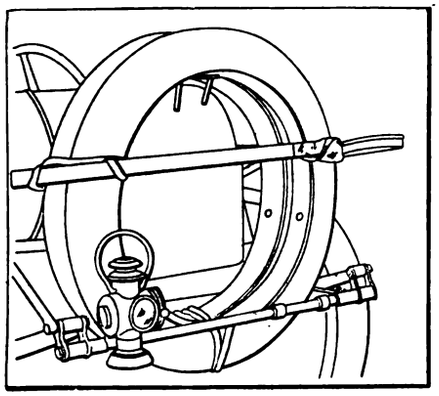


Fig. 1

fore the Society of Automobile Engineers, by H. H. Brown. Though the carrying of reserve supplies of gasolene and oil may be desirable, their transportation does not, in general, present so much of a problem

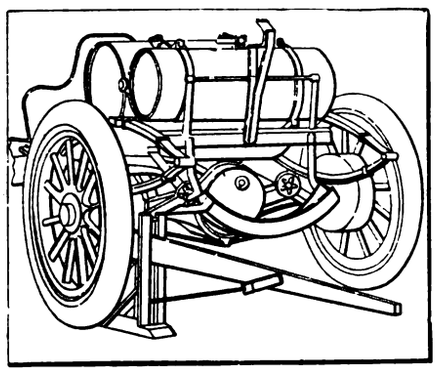


Fig. 2

as that involved in caring for tools and extra tires. To this portion of the subject Mr. Brown paid especial attention.

"For carrying tools the most satisfactory method, when all classes of cars are considered, is in a tool box on the running board," he remarked. "A box formed under the seat is, from many viewpoints, an equally desirable place; but in a touring car which employs gravity feed this position is precluded, as it is desirable not to curtail the dimensions of the gasolene tank in order that the distances that one can travel on a filling of gasolene should be as large as possible. The back seat space may be made available for carrying tools and supplies without inconvenience to the rear seat occupants by means of an outside, side or rear door. However, this method has the drawback that things are much more liable to get lost, owing to either theft or leaving the door insecurely fastened.

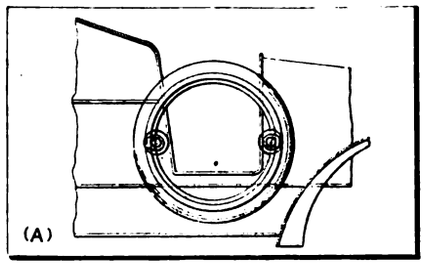



Fig. 3A

"As regards the ways of carrying the tools themselves, wherever they may be located, perhaps one of the best is that method in which a tray (or trays) having depressions for each individual tool is employed. An experienced driver or mechanic knows in advance pretty nearly what tools are required for a particular job. With the tray system no time is lost looking for them. Then, again, when the job is done, a glance will show whether any tool which may have been left by the roadside is missing, and the same glance will tell by the shape of the depression what tool it is that is missing. The only thing that can be said against this method is that it wastes considerable room and is, perhaps, somewhat expensive. Another method is the provision of a roll leather kit, with places for each tool. This method has the advantage that all tools can be carried to the vicinity of the job in question, and that a much smaller space is occupied by the tools as a whole. However, much more time will be occupied in getting out and

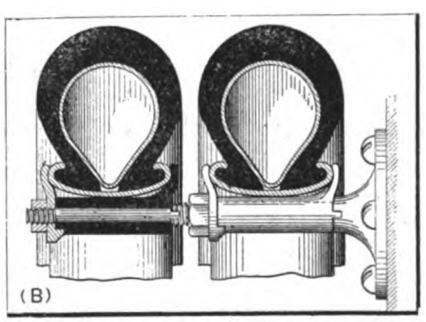



Fig. 3B

putting away the tools, which are much more likely to get lost than in the former method.

"One point seems to have been given very little thought by the makers: the methods of carrying spark plugs. Many plug makers provide secure mailing cases. As long as a plug is kept in one of these receptacles it matters little where or how it is carried. These receptacles, however, are bound to get lost or misplaced. A scheme the writer would suggest is that a wooden or metal block, threaded for the reception of the plugs, be secured to some part of the machine, in the interior of the tool box, or even under the bonnet. For instance, there might be provided on each cylinder a clip, into which a spark plug could be screwed. This would then act at the same time as a holder, in case one wished to test the spare plug or to test

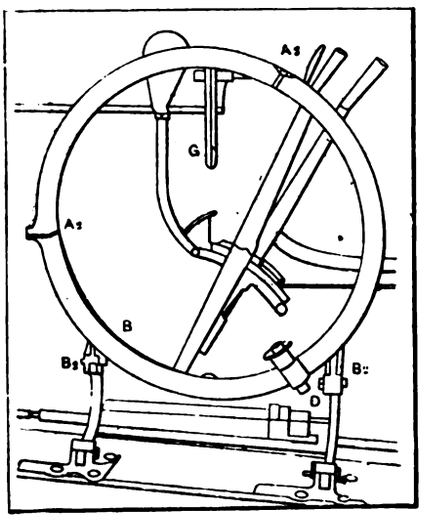



Fig. 4

the plug in the cylinder by the method of 'parallel gaps.'

"For all classes of cars the most convenient place to carry the extra inner tubes is probably the tool box on the running board. If some of the tools and supplies

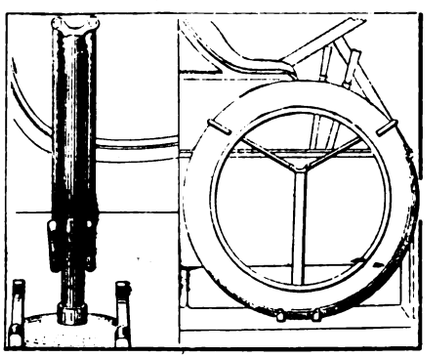


Fig 5

less likely to be used are arranged for in other places than the running board box, then room can be made for spare tubes in the tool box without greatly increasing its size, if at all. In the case of a town car, used as such, even with gravity feed gasolene system, the amount of gasolene needed is so limited as to allow of ample storage space for all tire tools and spare tubes under the front seat. The tire trunk is also a good solution of the spare tube storage space problem. . . .

"There is one point which has been given considerable attention on racing cars, and has been entirely neglected on touring

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cars; the manner of carrying demountable rims. On most cars the irons used to support and carry these rims are nothing but overgrown tire irons, to which the rims are generally secured by three or even more straps, which must be buckled and unbuckled each time that a tire change is made. Aside from manipulation, most of the ordinary tire carriers are bad from other points of view. It is in many instances necessary to hold the tires in place while tightening the straps, necessitating the help of a second person, or the use of one's knee or foot, with considerable chance of soiled clothes. Then, again, straps are often wholly depended on for support; and straps tend to stretch and allow the rims and tires to sway until in time the fabric of the tires becomes chafed and worn.

"On racing cars, great ingenuity has been displayed in methods of carrying spare rims, many times reflecting the individuality of the respective drivers. For instance, on the Alco, driven by Grant in the last Vanderbilt Cup Race, two tires were carried in the rear in a sort of frame or basket, each within a separate compartment of the frame (Fig. 1). This frame was arranged so that no straps were needed, a tire when inflated fitting its compartment snugly. A damaged tire would not fit snugly, and probably might chafe considerably, which, of course, would be of small moment on a racing car. While this method of carrying tires is almost ideal from the racing standpoint, it is doubtful if, all things considered, it would be a good one for regular pleasure conditions, from either the standpoint of beauty or utility.

"A rather good method was employed on some of the Marmon cars; in this case one tire only being carried. A sort of trough being bent to the same radius as the tire served as a support; the upper part of the tire, resting in a shallow, Y-shaped piece, and being held securely therein by a single strap (Fig. 2). This form of carrier has the advantages that it serves equally well without movement an inflated or deflated tire, and requires little time for strapping and unstrapping, and does not require so much lifting of the tire as the basket type.

"The writer saw recently a slightly modified form of the trough holder applied to a car fitted with a limousine body, the trough being sunk below the running board. A novel feature on this car was that while two tires were carried, they were carried on opposite sides of the machine. The symmetrical effect was quite pleasing, and, owing to the body design, neither front nor rear entrances were obstructed.

"On the Buick racers last year a steel strip was bent to the arc of a circle and supported at the rear of the car, the convex side up. Crosswise of this were strips bent up at either end. Thus a section of skeleton channel rim served as a support for the tire rim. A single strap served to hold the spare rim and tire in place.

"Very little seems to have been done in this country toward the design of a carrier supporting the spares by the rim, although at least two patents have been granted on carriers which use this method (Figs. 3A and 3B—McMurtry patent). The great advantage of this method lies in the fact that chafing of the tire is entirely eliminated. Figure 4 shows a device of this type marketed by the English Dunlop Company. This device will also serve as a holder during any tire manipulation, such as changing tubes, shoes, etc. It is so arranged that the tire and rim can be turned bodily on the holder, as though in place on a wheel. All the details of this device are well worked out.

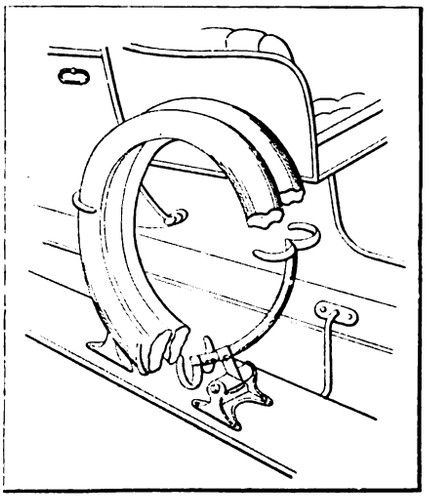


Fig. 6

"Two examples of what may be called automatic or semi-automatic demountable rim carriers are given. Figure 5 shows the G. P. M., in which two hooked arms are pulled down on to the tire by a spring concealed in an upright column. The lower part of the tire rests in a sort of curved base. In removing the tire it is only necessary to lift it against the force of the spring, at the same time moving the lower part outwardly. When the holder is not in use the arms fold down and the device is comparatively inconspicuous.

"Figure 6 shows the Rotax, another English device, in which the tire is retained in position solely by its weight. The action will be clear from the cut.

"Designers and manufacturers should fully realize the desirability of a demountable-rim holder that will carry the spare rim securely and admit of ready accessibility. . . . Everything indicates that a good, satisfactory solution of this problem can be arrived at in a variety of ways; in fact, many of the designs successfully tried out on racing cars could be applied to pleasure cars with little or no modification."

### Adjusting Bearings of Two-Cycle Engines.

Motorists who drive cars equipped with two-cycle engines should pay particular attention to the condition of the crank shaft bearings. For the proper working of the engine it is absolutely essential that the crank case compression be uniform in each crank compartment of the case. Therefore whenever the bearings are being overhauled or the lower part of the case removed for any purpose, it is necessary to make sure that the bearing adjustment is uniform and as close as is possible to secure without endangering the proper working of the bearing.

### Fights Regulation of Taximeters.

Coincident with the going into effect of the new law regulating the operation of taximeters and providing for regular inspection of the instruments an attempt has been made to prevent the enforcement of the law. Indicating that the carrying out of the provision requiring taximeter cab operators to charge 40 cents for the first half mile, instead of 50 cents, as some of them have been doing, would cause a loss to his company of $1,300 a month, John H. Naughton, treasurer of the Universal Taximeter Cab Co., which operates cabs from stands at the Knickerbocker and other hotels, attempted to secure an injunction restraining Frank V. S. Oliver, chief of the bureau of licenses, from putting the law into effect. The application was argued before Justice Bischoff, in Special Term of the Supreme Court, late last week and decision reserved. In prosecuting its duties, the new Bureau of Taximeters has taken a garage at 244 West 49th street, Manhattan, to which are sent all cabs discovered by the inspectors to have fast meters, or those which register an unlawful initial charge.

### Where a Chauffeur is Not a Chauffeur.

By a strict and rather roundabout interpretation of the Massachusetts automobile law, it has been discovered that drivers of automobile fire apparatus, ambulances and the like are not required to obtain chauffeur's licenses. The loophole that has been found is in the definition of a motor vehicle, which, for purposes of speed regulation, is designated as including "automobiles, motorcycles and all other vehicles propelled by power other than muscular power, except . . . ambulances, fire engines and apparatus, police patrol wagons and other vehicles used by the police department of any city, town or park board solely for the official business of such department or board." The definition of a chauffeur designates a person who "operates a motor vehicle other than his own, etc." So, it is construed, that the driver of a motor fire engine is not a chauffeur, because he does not operate a machine that is, in the eyes of the law, a motor vehicle.

"The A B C of Electricity." Price, 50c. The Motor World Publishing Co., 154 Nassau street, New York City.

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## ENGINEERING SIDE OF TAXATION

### Terry Points Out Absurdities of Present System—Reveals Opportunities in Solving License Problem.

Motor car taxation ordinarily is considered entirely on its political merits. Perhaps a more equable viewpoint, however, is that taken by Charles Thaddeus Terry, general counsel of the National Association of Automobile Manufacturers and chairman of the legislative board of the American Automobile Association, in an address, "The Basis for Motor Car Taxation," presented before the Society of Automobile Engineers at its recent meeting in Detroit. "This is fundamentally an engineering subject," asserted Mr. Terry, "inasmuch as it involves the proper method of computing the horsepower of cars, as well as the construction of highways adequate for modern needs." He further expressed the view that there is nothing in the nature of the automobile as a vehicle which should so far distinguish it from other vehicles using the highways as to warrant the imposition upon it of a special species of taxation.

"It is fundamental in our system of government that taxes shall be levied on the basis of equality and without discrimination; that they shall be levied upon some uniform basis which shall equalize the burden," he continued. "The prevailing basis of taxation in our country is that of valuation of the property taxed. If automobiles were taxed according to their value just as all other personal property is taxed according to its value, we should have no objection. If the distinction were made between all vehicles on the one hand and all other personal property on the other hand, and the discrimination were so far allowed to have its sway as to permit the imposition of a tax upon vehicles as such, and not in proportion to their value, then we must seek for the basis upon which the rate of taxation should be determined. There is only one possible basis of taxation of vehicles, if it is not to depend upon their value, and that is the amount of their use of the highway. . . . There is no ground in reason or logic upon which to predicate the proposition that automobiles should be taxed for the use of highways and all other vehicles go scot free. Different kinds of vehicles wear the highways to different degrees, and if we are to have a tax based upon the use of the highways, then it should be graduated according to the amount which each species of vehicle wears the road.

"If automobiles wear the roads, so do horse-drawn vehicles, and I am quite willing personally to stand upon the proposition and defend it anywhere and at any time, namely, that if automobiles wear the roads, horse-drawn vehicles wear and tear them much more. It has been demonstrated beyond peradventure that, in the case of a properly constructed road, if it is used exclusively by motor vehicles, the condition of the road will be improved rather than impaired, and at the end of five years will be in a better condition than it was when it was made. I refer you to the experiment which was tried in Paris. There, one of the well known boulevards was laid out in sections, two of the sections devoted exclusively to horse-drawn vehicle traffic, and two to automobile traffic. All the sections of this boulevard were constructed with equal solidity and in a uniform manner. After five years, the two sections devoted exclusively to horse-drawn vehicle traffic were practically destroyed, whereas the two sections devoted exclusively to automobile traffic were in a condition much better than at the time they were opened for use. . . .

"It is the function of the Government to furnish roads adequate for the traffic which they should carry, not to compel vehicles to conform to the character of the roads, however poor. In short, the roads must fit the vehicle, and not the vehicle the roads. Roads which were good enough for the camel and the ox team, will not suffice for the bicycle and the automobile. . . . It is not the fault of the automobilists nor of their machines that some roads are in their present plight, but it is the fault of the road builders. They have, with the most calm and undisturbed obtuseness, persisted in dressing their surfaces with a finely comminuted material which they well knew or should have known must be displaced by the metal shoes and the narrow metal tired wheels of horse-drawn vehicles, and then thrown to the rear or sides by the so-called suction of broad rubber tires.

"If any class of citizens should be compelled to provide the revenue for the construction, repair and maintenance of roads, adequate for modern traffic, it should be the class of citizens who use vehicles, any kind of vehicles, and they should pay in accordance with the use which their particular kind of vehicle makes of the road, and in the proportion in which it wears the road. There is nothing clearer to my mind as a matter of law than that the tax, for road purposes, levied exclusively upon automobiles, is discriminatory, is class legislation, and for those two reasons unconstitutional. . . .

"In some instances the motor vehicle statute of a state has stripped the matter of all pretense of equality, has boldly asserted in substance that there is no logical basis upon which a graduated tax may be imposed upon motor vehicles, and has provided that each motor vehicle, upon registration, shall pay a certain fixed, flat, unalterable tax. This fee is, in some such statutes, ingenuously designated a 'registration fee.' But there is nothing in a name. Such a fee would be in reality and in law a tax irrespective of the cunning phraseology in which it might be veiled. Such a statute emphasizes the inclination to disregard the rights of automobilists in this respect. A flat registration fee of $10, for example, is far in excess of what would be necessary to meet the expense of the registration office, and as a matter of fact a fee of that amount would and does provide revenue to the state. We can get no further back in fundamental principles than the Federal Constitution. . . . I recall them to your mind again at this time; they are as follows:

"'No state shall make or enforce any law which shall abridge the privileges or immunities of citizens of the United States, nor shall any state deprive any person of life or property without due process of law, nor deny to any person within its jurisdiction the equal protection of the laws.'

"And again, another provision of this same fundamental law of the land:

"'No person shall be deprived of life, liberty or property without due process of law, nor shall private property be taken for public use without just compensation.'

"As citizens of the United States, are we not now, as we have always been, at perfect 'liberty' to use the highways of the nation for intercommunication? That is what 'liberty' means. Has anybody ever questioned our 'liberty' to proceed with a horse-drawn vehicle over the highways of the nation as far and as frequently as we might choose? When we come to automobiles, shall a different principle apply?

"'Nor shall any state deprive any person of . . . property without due process of law.' So says the Constitution. Is it not depriving a person of property without due process of law to compel him to pay an impost in order to exercise his right to use the roads? Can a natural, common law right be relegated into a privilege by the imposition of a tax for its exercise. If it is lawful and constitutional to compel a man to pay $10 before he may exercise his right to use the roads, would it not be just as lawful to compel him to pay $1,000 or $2,000? And when you have reached those figures, you have put the matter in the absurd light in which it belongs. If the tax be considered to be imposed for the use of the roads and the maintenance thereof, what sense can there be in imposing the same tax on a large 60 horsepower car as upon a small runabout of 20 horsepower? The thing does not bring itself anywhere into the realm of reason.

"The state statutes taxing motor vehicles fly in the face of another provision of the Constitution. The document says no state shall 'deny to any person within its jurisdiction the equal protection of the laws.' Is it 'equal protection of the laws' to mulct the owner of a small runabout the same

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amount that is paid by the owner of the 60 horsepower touring car? Can it be considered, by any stretch of imagination, to be 'equal protection of the laws' to require those who use the roads in automobiles to pay a special tax, while those who use the roads in any other kind of vehicle go free of the burden? Is it 'equal protection of the laws' to tax all other personal property a certain percentage of its value, but when you come to motor vehicles, tax them not only as personal property at the same rate, but also impose a further, additional and unstandardized tax without regard to value?

". . . Eventually we shall dislodge this iniquity from the statute books, and must consider, meanwhile, if there is to be temporarily a tax imposed upon automobiles for the use of the roads, what the fairest basis of such a tax should be, and here we reach the province of the engineer. The formula worked out by automobile engineers, after years of study and experience, and popularly known as the A. L. A. M. formula, has, through our efforts in the New York State Legislature, been adopted by the State Government as the official standard by which to levy the tax on automobiles in that state. There can be no doubt but that it will be recognized elsewhere, and that if the formula of standard is improved upon by automobile engineers, such improved form will be substituted for that which has already received governmental recognition. . . .

"If road vehicles are to be segregated from all other personal property, then it would seem that a basis should be found and a test applied applicable alike to all classes of such road vehicles, and the discovery of such a test would be a notable achievement, and I believe would go a long way towards establishing the legal propositions which I have already summarized; because, if all road vehicles could be put upon an even plane of taxation, fair and equitable to each and every class of vehicle, then legislatures would be in a position to enact a perfectly scientific and unexceptional law in this respect. It would be unassailable, and would successfully resist all attacks, because of its equality and its fairness.

"What are the elements then which must enter into the calculation? In the first place, there is to a considerable extent the element of weight, but weight alone, of course, will not fix the amount of wear upon the road by the vehicle. It is not even a determining factor. It is simply an element. A small car of half the weight of a larger one, but going at twice the speed, will doubtless wear the road more than the larger car, so the speed at which the car may be driven is a factor, and a very important one. Your president, Mr. Coffin, has taken the pains to ascertain from the statisticians of the railroads information as to the ratio of wear and tear upon the rails as the speed of the locomotive is increased, finding that the speed at which the engine is driven has much more to do with the wear and tear upon the rails than the weight of the locomotive or of the train.

"Then again, there is the factor of the manner in which the driving power of the engine is communicated to the wheels. If it be communicated gradually and easily, the start is made without much abrasion of the road. If, on the other hand, it be communicated violently and in a jerky manner, the abrasion to the road will be much deeper. Another element entering into the consideration is the size of the wheel. Still another is the width of the tires, and still another the character of the tires. The factor of horsepower is mixed up with the factor above referred to of capacity for speed. All these things and others must be borne in mind in solving the problem.

". . . Whether in this matter of the taxation of road vehicles, the lawyer may be of assistance to the engineer or not, it is certain that the engineer may be of vast assistance to the lawyer. I leave you in conclusion three propositions, and they are these:

"First: There is no warrant in law for the taxation of motor vehicles exclusively, nor for the payment by the owner to the state of any sum in excess of the small expenses of a registration office.

"Second: If vehicles are to be taxed at all for the use of the roads, all vehicles must be taxed upon a uniform basis. This is demanded not only by the Constitution and the law, but by fundamental principles of justice and fair dealing.

"Third: If all road vehicles are to be taxed for the use of the roads, a scientific basis may be reached and a test devised which may be applied to every class of vehicles alike, and this is a paramount service which you may render to all motor vehicle users everywhere."

### Spain Plans Great Circuit Highway.

Spain, at present in the throes of a political and religious upheaval, has not been much in the limelight as a touring country, mainly on account of the atrocious condition in which the state highways have been for many decades past. Not only are the roads themselves poorly made and negligently kept, but there often is no provision made for crossing streams and ravines. How extraordinary the conditions in that country are at present is evident from the experience of the Perigueaux Automobile Club. The members of this club of Southern France, 80 strong, started for Barcelona in June last, and were unable to do more than cross the frontier. Although in the best season of the year, with few rains and storms, the rivers were unbridged, ravines halted the advance of the tourists wherever they endeavored to turn, until finally they were compelled to retrace their way and give up the idea of a tour to the Spanish city. What people call country roads in Spain are usually nothing but wide trails thickly covered with sand and dust.

"To remedy these conditions," says consul Hill, of Barcelona, "and in order to bring into Spain some of the thousands of automobiles rolling over the highways of Europe, the Barcelona Automobile Club has started a movement for the construction of a national highway, practically circling the entire country, and touching all the principal points of interest, viz., Vittoria, Burgos, Valladolid, Madrid, Toledo, Ciudad Real, Cordova, Seville, Malaga, Granada, Murcia, Alicante, Valencia, Tarragona, Barcelona, Gerona and La Junquera. In addition to this circuit highway there are connecting highways which, it is stated, are already in fairly good shape. These roads are those from Barcelona to Madrid by way of Saragossa and Guadalayara, and the roads in the north of Spain and to Lisbon.

"The circuit highway as proposed would be about 1,674 miles. No new roads will have to be built, although most of the distance will have to be thoroughly repaired and in many instances bridges must be built. It is estimated that an appropriation of from $1,440,000 to $1,800,000 would put the circuit highway in shape for motoring, and that a yearly outlay of from $270,000 to $360,000 would keep it in good repair.

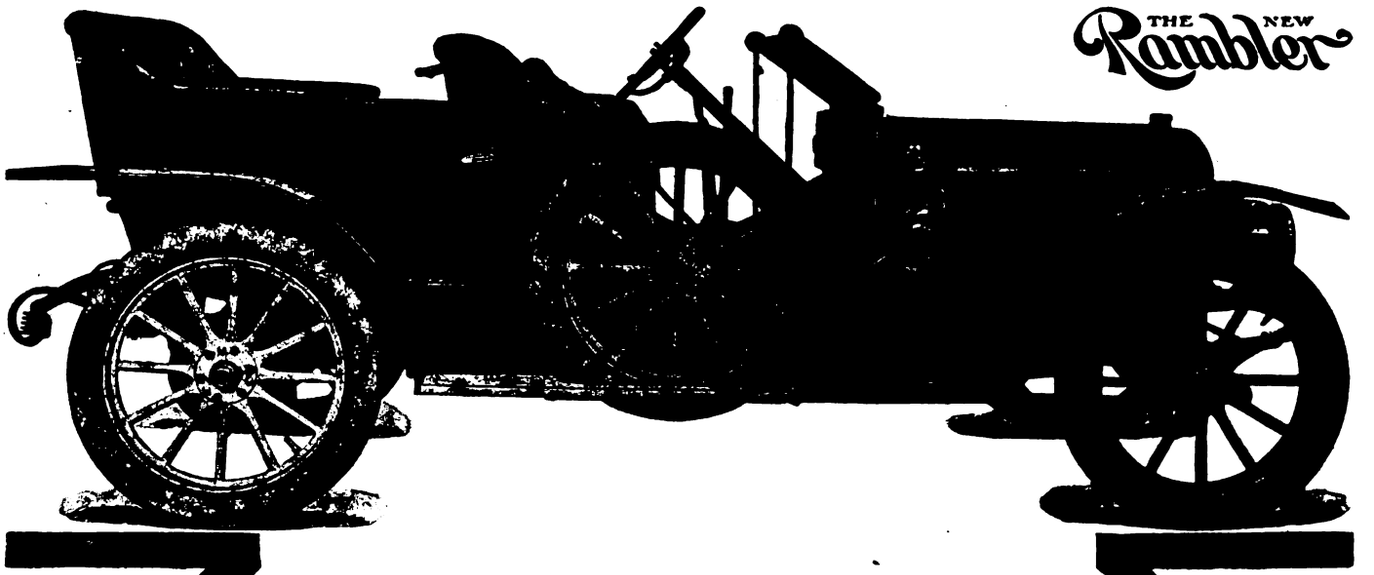
"It is proposed, when the circuit highway is ready for traffic, to inaugurate it by a grand prize of Spain, a motor-car contest over the whole route under the patronage of the Government. The present minister of public works announces his intention of following his predecessor's policy in regard to this circuit highway—his predecessor having taken an active interest in the proposition."

### Good Roads Convention in October.

On October 6th, 7th and 8th the third National Good Roads convention will be held at St. Louis, Mo. Preparations for the event are being made by the American Automobile Association, the National Grange Farmers' Union, American Road Builders' Association, U. S. Office of Public Roads and the National Association of Automobile Manufacturers.

The convention will be divided into two parts, one devoted to the roads proposition in its general aspects, and the other occupied with technical papers, prepared by the most noted experts. Invitations to attend the convention will be sent by President L. R. Speare of the A. A. A., on behalf of the committee in charge of the convention, to the governors of states, mayors of cities, state highway commissioners, park commissioners of cities, county commissioners and town highway commissioners throughout the entire country, a well as to officers of farmers' organizations, automobile clubs, automobile and vehicle manufacturers, and other interests involved in road making and road machinery.

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## RECENT PATENTS.

962,445. Filler or Junk Plate for the Crank Cases of Explosive Engines. George W. Marble, Chicago, Ill., assignor of one-half to William R. Donaldson, Chicago, Ill. Filed May 11, 1907. Serial No. 373,189.

1. In a device of the class described a crank plate, junk or filler plate secured on each side of the crank plate having interlocking flanges adapted to engage around the periphery of the crank plate.

962,448. Automobile Controller Lever Lock. Franklin C. Miller, Easton, Pa. Filed April 26, 1909. Serial No. 492,189.

1. An automatic attachment comprising a controller, means for holding the controller in different operating positions, and a key-controlled device permanently carried by and projecting from the controller and adapted to be thrown into and out of co-operative relation with the said holding means.

962,450. Shaft Reversing Mechanism. John D. Mooney, St. Paul, Minn. Filed Oct. 5, 1906. Serial No. 337,557.

Transmission mechanism comprising a driving shaft having a circular flange at its end, a balance wheel bolted to said circular flange, integral gears of different sizes mounted on said bolts, a surrounding casing bolted to said balance wheel and having openings within which said first named bolts are supported, a driven shaft having an integral gear near its end and adapted to mesh with the larger members of said integrally formed gears, a sleeve rotatably mounted on said driven shaft, a gear formed integral with said sleeve, a frusto-conical flange bolted to said balance wheel and having an inner friction surface, a complemental conical member having an outer friction surface and splined on said sleeve, a spring for normally forcing said complemental member into contact with said cone, a ring threaded on said sleeve, cam levers pivoted on said ring, and contacting with said conical member, a cone for operating said lever to force said conical member out of clutching position against the tension of said spring, said conical member having an integral circular flange, a split band on said flange, and lever mechanism for shifting said cone to disengage the clutch and simultaneously tightening said band to brake said conical member and thereby hold said sleeve stationary.

962,487. Vehicle Top Bow Holder. Sherman T. Allen, Detroit, Mich. Filed Aug. 2, 1909. Serial No. 510,716.

1. In combination with the bows of a vehicle top, laterally projecting members fixed thereto, a receiving bracket into receiving portions of which each of said members is adapted to reach when said bows are lowered, and a holding member adapted to be locked in position over said bracket and said members, substantially as described.

962,509. Motor Vehicle Lubricating Means. Russell Huff, Detroit, Mich., assignor, by mesne assignments, to Packard Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed June 4, 1906. Serial No. 320,189.

1. In a motor vehicle, the combination with an engine base constituting a crank case, of cylinder casings supported on said base, an oil tank supported on said base and contiguous to said casings, and a tube passing through and connected with the oil said vent tube communicating with the crank case below the oil tank and with the atmosphere above the oil tank.

962,518. Pump. James E. Naughtin, Chicago, Ill. Filed Aug. 21, 1909. Serial No. 513,934.

1. In a pump, the combination with a cylinder having a discharge opening in its side, of two interfitting and relatively slidable members one of which fits slidingly in said cylinder and has a chamber therein opening into the cylinder and a port opening into said chamber from the side, one of said interfitting members being rotatable and the other being non rotatable, and a cam device operated by one of said interfitting members and operating upon the other of said interfitting members for the purposes deseribed.

962,604. Spark Plug. Gregor Walzell, New York, N. Y. Filed Sept. 3, 1909. Serial No. 516,068.

A spark plug provided with a cap, an inclosed charge of platinum sponge, an open work keeper that confines the platinum sponge within the cap, a first electrode centered upon the keeper, and a second co-operating electrode.

962,622. Speed Gage. Louis A. Casgrain, Beverly, Mass. Filed Dec. 8, 1906. Serial No. 346,844.

1. A speed gage having, in combination, a rotary indicator provided with a series of graduations to indicate a given range of speeds extending around the indicator a plurality of times, means actuated by the object of which the speed is to be indicated for exerting a rotative force on the indicator varying with the speed of the object, and a spring acting on the indicator in opposition to said rotative force, constructed and arranged to permit the indicator to make a plurality of revolutions as the speed of the object varies through the range for which the indicator is designed and co-operating with said force to bring each graduation opposite a fixed point as the object attains the speed indicated by the graduation, substantially as described.

962,626. Automobile. Claude E. Cox, Minneapolis, Minn. Filed Oct. 29, 1909. Serial No. 525,365.

1. In an automobile, the combination, with the main frame and its supporting wheels, of a driving axle structure, a transmission gearing drivingly connected with the movable members of the driving axle structure and movable as a whole relative to the main frame, a controlling lever mounted upon the main frame and movable thereon in two planes, a rock shaft carried by the body of the transmission gearing and movable therein both rotatively and axially, a member carried by said rock shaft and adapted to engage with either of two shifting members comprised within the transmission gearing, and intermediate flexible connections between the controlling lever of said rock shaft, compensating the relative movement between the transmission gearing body and the main frame, whereby said rock shaft may be shifted rotatively and axially by the controlling lever on the main frame.

962,633. Rear Axle Construction. Royal H. Gilbert, Lakewood, Ohio. Filed Feb. 19, 1907. Serial No. 358,229.

1. In a motor vehicle, in combination, suitable driving wheels, an axle for operating the same, a driving member, suitable coupling devices between said axle and each of the driving wheels whereby the former may be coupled to the latter to drive the same in either direction, each of said wheels being capable of rotating independently at greater speed than the axle when driving in either direction, and means automatically operated and arranged between said driven member and said axle for bringing about the automatic operation of such of the coupling devices as will cause the wheels to be driven by the axle in the proper direction.

962,649. Carburetter. Harry A. Miller, Los Angeles, Cal. Filed Nov. 16, 1909. Serial No. 528,399.

1. In a carburetter, a nozzle, means for supplying gasolene thereto, a rod slidable above the nozzle with its lower end extending into the mouth thereof, a shaft extending into the carburetter, an eccentric on the shaft adapted to limit the upward stroke of the rod, a spreader surrounding the rod, and a flange on the shaft forming a stop to limit the upward movement of the spreader.

962,653. Starting Apparatus for Gasolene Engines. Vaughan Morrill, Tacoma, Wash. Filed March 9, 1910. Serial No. 548,147.

1. In an apparatus for starting gasolene engine, the combination with the engine; of a removable valve casing mounted thereon and having a passage leading to the engine cylinder and an exhaust passage; the valve in said casing and having a gasolene measuring receptacle therein and an exhaust passage therein; a gasolene supply pipe leading to the valve; a compressed air supply pipe leading to the valve and means to operate said valve.

962,680. Protective Casing. Bernhard Volkmar, New York, N. Y., assignor to Auto Improvement Company, a Corporation of New York. Original application filed Sept. 4, 1908. Serial No. 451,706. Divided and this application filed Dec. 9, 1909. Serial No. 532,176.

1. A protective inclosing casing comprising two parts secured together by rotational engagement, means for securing the casing to a support, such means being releasable only from within one of said parts and being protected from access by the other part, and means for sealing the two parts together comprising lugs on both parts, a bar adapted to engage with such lugs to prevent disengaging rotation of the parts, and a seal for holding the bar in such engaging position.

962,703. Auxiliary Spring for Vehicles. John Eckhard, Boston, Mass. Filed Feb. 4, 1910. Serial No. 542,115.

1. In a vehicle, the combination with an axle, of a vehicle body, a main spring supported by the axle and sustaining the body, an auxiliary spring device comprising a spring holder carried by the axle, two coil springs carried by said holder, one of greater strength than the other, a cap for each spring, and tie-rods secured to each ca pand passing loosely through the holder one of said caps having ears thereon through which the tie-rods of the other cap pass.

962,729. Automobile Tire. George F. Annis and Charles C. Annis, Freedom, Okla. Filed May 9, 1908. Serial No. 431,883.

A tire having its tread surface formed with a plurality of parallel peripherally extending continuous ribs and obliquely extending ribs connecting the intermediate peripheral rib with the outside ribs, said obliquely extending ribs forming a series

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of pockets each having one end beveled and the other under-cut.

962,730. Tire Carrier. Charles F. Batt, New York, N. Y. Filed April 1, 1909. Serial No. 487,154.

1. A spare tire holder comprising a frame consisting of a vertical section, a horizontal section adapted for adjustment to a vehicle on the outer side of the spare tire, a section of said frame constituting a continuation of the horizontal section and inclined in front of said spare tire toward the vehicle frame, securing means on said frame, brackets to support said vertical section and said inclined section.

962,790. Scleroscope. Albert F. Shore, New York, N. Y., assignor to Shore Instrument Manufacturing Company, New York, N. Y., a Corporation of New York. Filed Nov. 26, 1907. Serial No. 403,981.

1. An apparatus for testing the hardness of solid bodies, which consists of a finely pointed superhard striker impinging said bodies, vertical guiding means for directing the course of the striker, and means for observing and registering the rebound of the same.

962,814. Means for Securing Tires to Vehicle Wheels. Charles G. Cabanne, St. Louis, Mo. Filed Sept. 30, 1908. Serial No. 455,493.

1. The combination of a felly carried rim, formed at one side with an outwardly extending flange and at its other side with an inwardly extending flange, having at intervals forwardly and rearwardly extending inclined tongues and diagonal passageways between the inclined tongues, and a retaining ring having an outwardly extending flange and a rearwardly extending flange formed with diagonally arranged peripheral fins adapted to occupy the diagonal passageways of the felly carried rim.

963,044. Friction Clutch. Russell Huff, Detroit, Mich., assignor, by mesne assignments, to Packard Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed April 27, 1907. Serial No. 370,620.

1. In a device of the class described in combination, a cylindrical friction surface, a split ring adapted to engage said surface, one end of said ring being anchored and the other end movable to engage said surface, and means adjacent the anchored end of said ring to yieldingly press the same against said surface, substantially as described.

963,048. Tire Fastener. Ruric W. Jordan, Boston, Mass., assignor to Jordan Demountable Rim Company, Boston, Mass., a Corporation of Massachusetts. Filed May 15, 1907. Serial No. 373,837.

1. The combination with a wheel, of a rim comprising inner and outer sections, the inner section being secured to the felly, and the outer section having slots along one of its edges, and an expansible ring on the outside of the inner section, and having teeth entering the aforesaid slots.

963,081. Vaporizer or Carburetter for Gas Engines. Charles D. Shain, Rockaway Park, N. Y. Filed Feb. 6, 1909. Serial No. 476,539.

In a vaporizer or carburetter a gasolene or liquid fuel supply valve or cock with lever having in its end a swivel stud with a threaded hole in one end, an adjusting rod of electrical conducting material with an insulated portion, one end of the adjusting rod provided with a thread which screws into the swivel stud, the other end of the adjusting rod having a hand wheel; an insulated block with a hole through it attached to a support, through which the adjusting rod passes, the insulated block provided with two spring contacts bearing against the adjusting rod; the insulated block having binding posts in contact with the springs of the spring contacts, with wires connected to the electrical sparking source of a gas engine, arranged so that by sliding the adjusting rod back through the hole in the insulated block, the supply valve or cock can be opened and the electrical sparking circuit of the gas engine established, and by sliding the adjusting rod forward through the hole in the insulated block, the supply valve or cock can be closed and the electrical sparking circuit of the gas engine disrupted; and by turning the adjusting rod when the supply valve or cock is in the open position, the partial closing of the supply valve or cock can be regulated and the electrical sparking circuit of the gas engine maintained without interruption, all substantially as set forth.

963,094. Shock Absorber. Charles Swan, Corry, Pa. Filed Jan. 22, 1909. Serial No. 473,673.

In a shock absorber, the combination of a cylinder; means for attachment to an axle and a vehicle body, one of said means being in the form of a bracket on said cylinder; a second bracket on the cylinder, one of said brackets on the cylinder being adjustable; supports at each end of the cylinder for receiving the end thrust of the spring; a bell crank lever secured to the second of said brackets on the cylinder; a rod extending through the spring; devices on the rod for engaging each end of the spring; a connection between the rod and the bell crank lever; and a connection between the bell crank lever and the other of said means comprising a rod having shoulders thereon and slidingly connected with the bell crank lever, said shoulders being spaced to engage the bell crank lever only with an excess of relative movement between said means.


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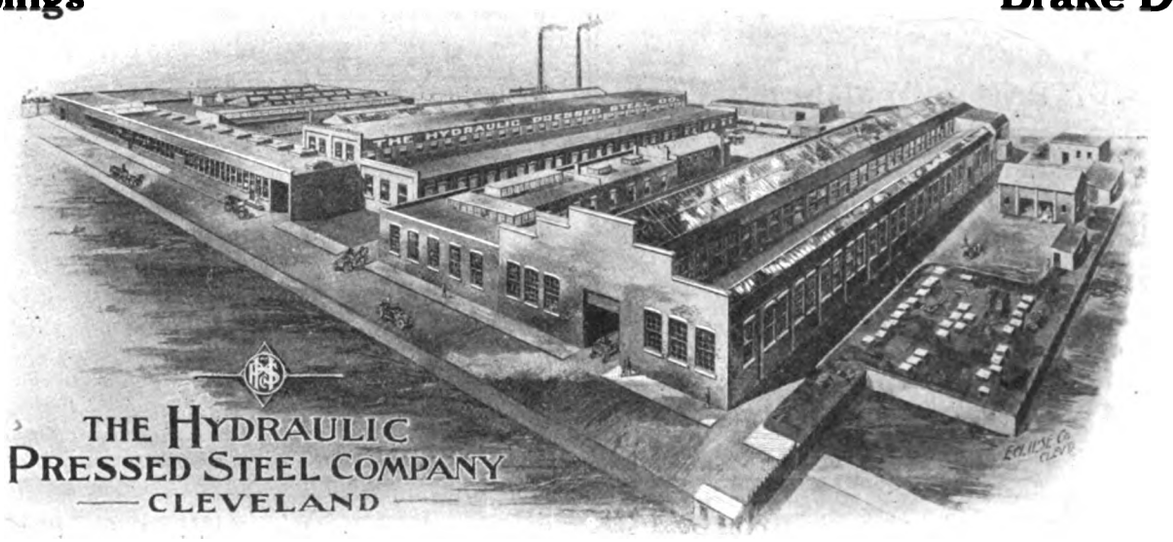
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| G-11 | Touring Car | 4 | 30 | 1575 fob |
| I | Touring Car | 4 | 25 | 1100 fob |
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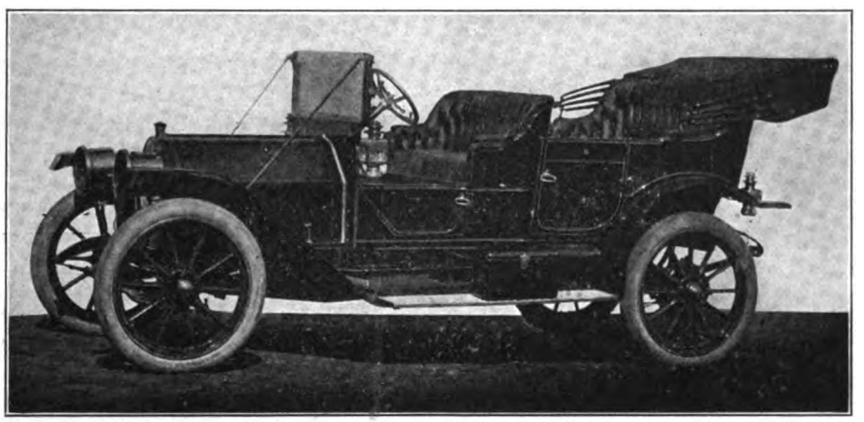
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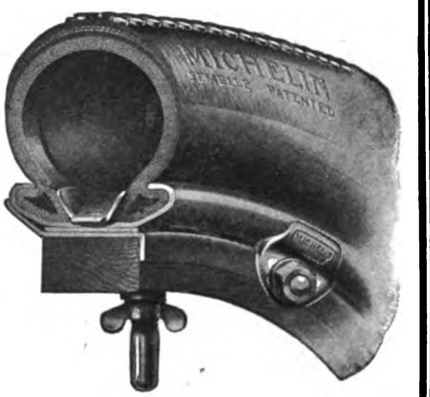
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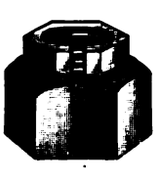
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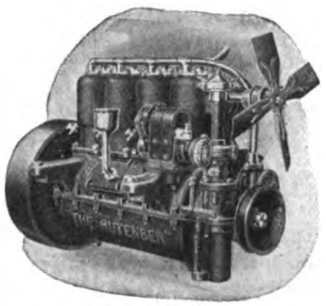
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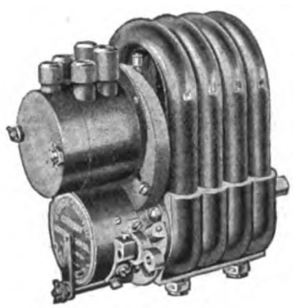
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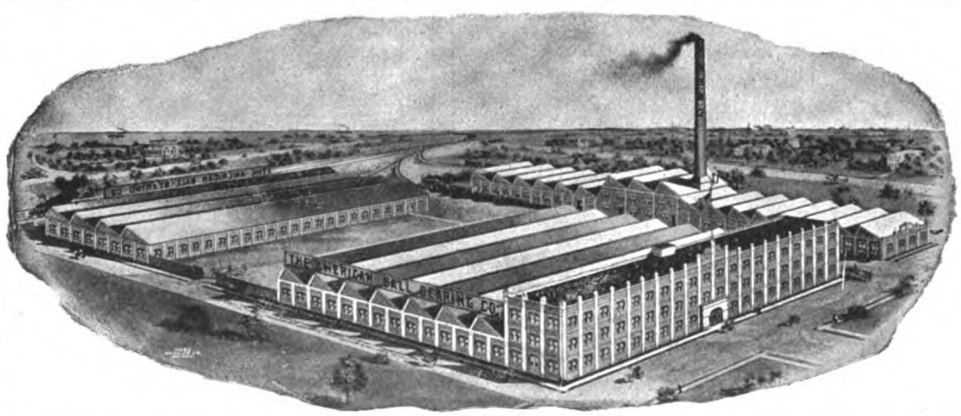
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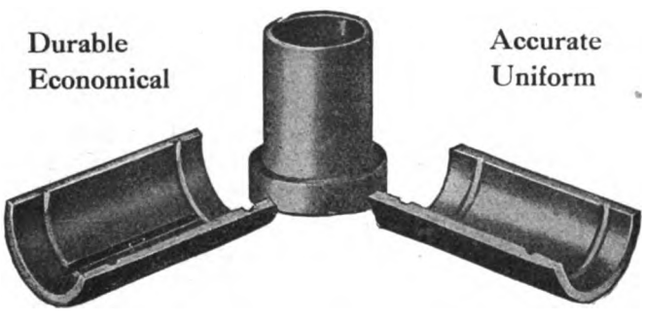
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The only quality good enough for your tires is produced by the materials and experiences that go into

# Kelly-Springfield
## Automobile Tires

"I have a pair of 4-inch Kelly-Springfield casings and inner tubes on my Packard runabout which have gone over 8,000 miles. They are in shreds, and yesterday I started on a trip into a rough country of 105 miles. I bet a dollar with our Mr. Dean that the old tires would take me through, which they did and I won the dollar.

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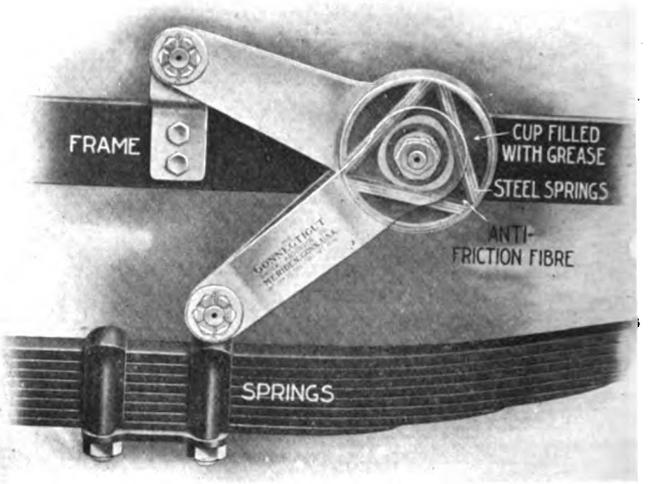
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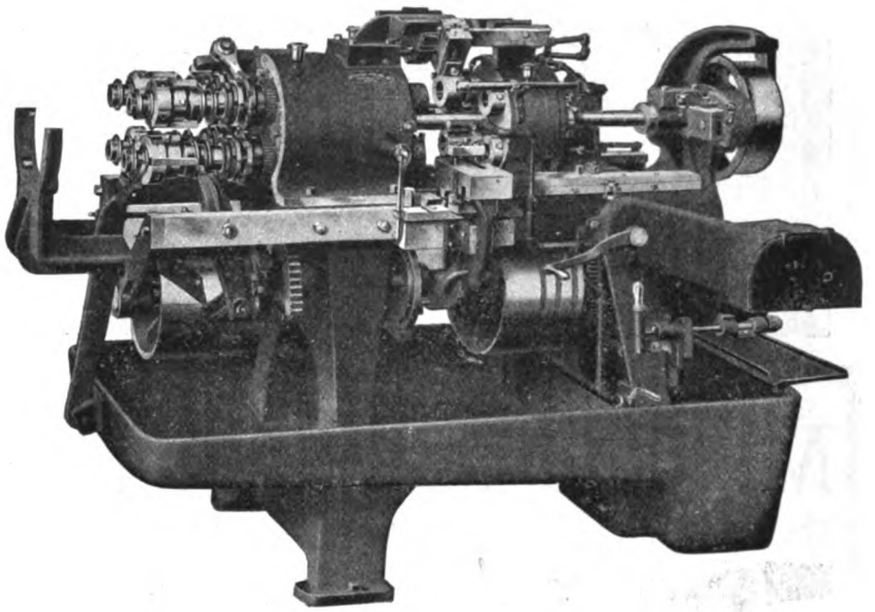

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produces over ½ of the small parts used by the largest automobile manufacturers in the country.

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Made in all sizes. Mica and Porcelain interchangeable.

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with similarly named, poorly constructed imitations. When you buy Spark Plugs please see that the words

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are stamped on the metal of the hexagonal nut, also on the porcelain. These words guarantee the plug fully, and assure you that you are receiving the original and genuine Auburn Ignition Plugs—plugs made in the largest factory devoted exclusively to plug making in the country.

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**Remember, please, that The Auburn Ignition Mfg. Co. is in no way connected with any other company previously in Auburn, N. Y., or now doing business in Auburn, N. Y.**

**THE AUBURN IGNITION MFG. COMPANY**
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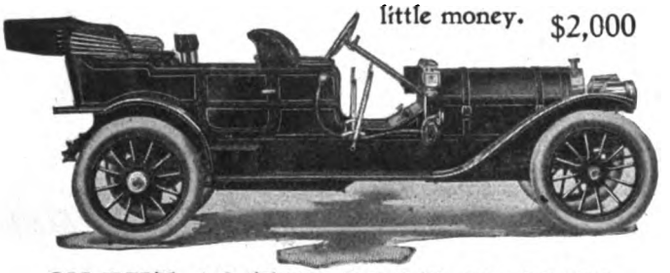

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The only six cylinder car in the world that sells for so little money. $2,000



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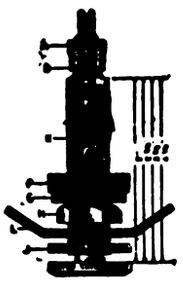
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Steady Pull




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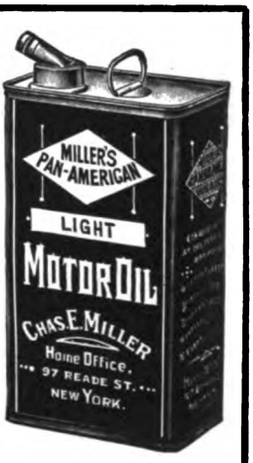
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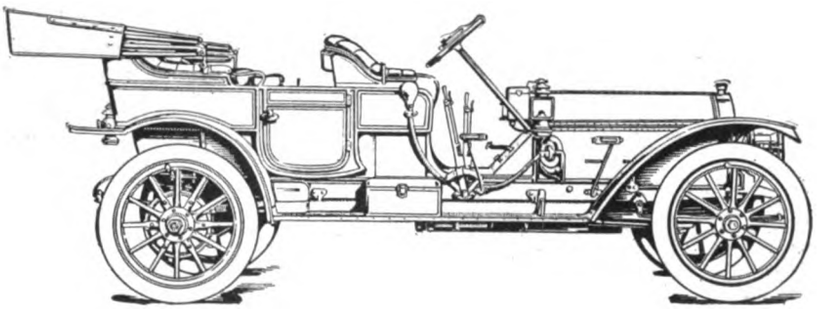
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## THE MODEL AA—ITS POWER

¶ When ascending a hill—the primary sensation is, being moved by a gentle but irresistable force, not that feeling—which one cannot forget—of propulsion by an engine, and an engine that is working hard.

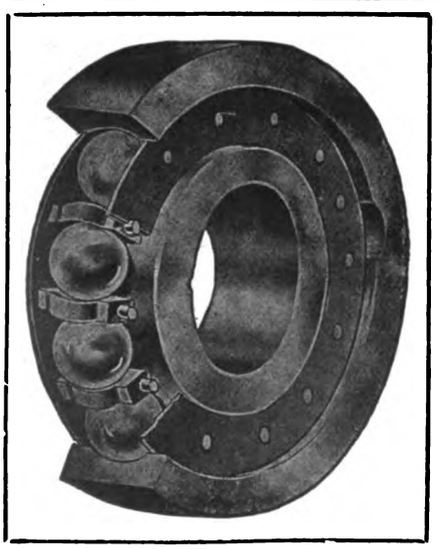
¶ In the six cylinder model AA engine, the power strokes are overlapping, resolving into a steady pressure entirely overcoming vibration.

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**The Pioneers to Employ 92% of Balls in the Raceway**



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# Ball Bearings
## Fear No Oomparison

**PRESS FIT ALLOWANCES** We have a table giving bearing bore in m.m. and inches, and minimum and maximum shaft diameters in m.m. and inches, which we recommend and will supply to manufacturers. Experience has shown that with shafts sized in accordance with this table, the inner races of our bearings will have the proper fit; if the shaft is smaller, the races will creep and cut down the shaft; if the shaft is larger, undue force must be exerted to get the bearings on, with the grave danger of cracking the inner race.

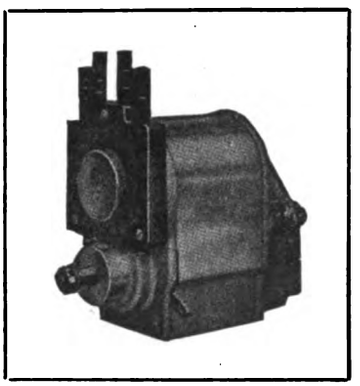
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High tension, with stationary, removable coil. No moving wire on the armature. Each spark is followed by an arc flame. This arc flame will ignite a much weaker mixture than with the spark produced by the usual coil ignition. A variation of 45 degrees is allowed on the magneto shaft, which means 45 degrees in the crank shaft for a four cylinder, four cycle motor, as the magneto runs at crank shaft speed.

The retarded spark is just as efficient as the advanced spark, making it easy to start the motor with a quarter turn of the crank, with the timing lever fully retarded.

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**Pittsfield Spark Coil Co.**

DALTON, MASS.

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Pullman

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It has been found impossible to improve upon the design and construction of 1910 models which will be continued with only detail changes.

**Pullman Motor Car Co.**

**York, Pa.**

Licensed under Selden patent.


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# CORBIN FOR 1910

**"Full Jeweled!" A Splendid Car Perfected!**

Touring Cars, Runabouts and Toy Tonneaus . . $2,750.00
Including Cape Top, Bosch Magneto and Prest-O-Lite Tank in addition to all regular equipment.

*Write for advance circular H.*

**The Corbin Motor Vehicle Corporation,** New Britain, Conn.
Licensed under Selden Patent.

# Dealers: The business is there



**Get It**
and keep it by taking the agency for the
**MONITOR**

The 2000 pound car shown will do the work of three horse drawn vehicles at one-half the cost. Write for prices and agency offer before your territory is taken.

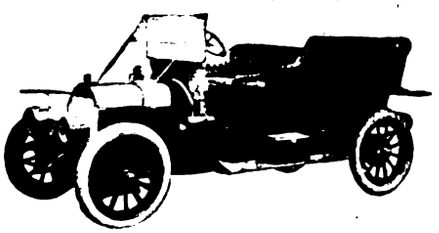
**Monitor Auto Works,**
**214 N. Academy St.,**
**Janesville,**
**Wis.**

**Designed Right**
**Built Right-Priced Right**

# MERCER

TOURING CAR
TOY TONNEAU
SPEEDSTER

**Each $2150**



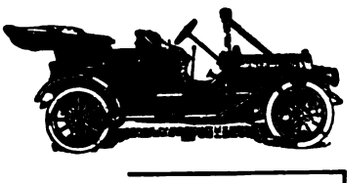
**Style, Luxury, Quality, Strength, Speed.**

**Made Right and Stays Right**

*Let us hear from you.*

**MERCER AUTOMOBILE CO., Box 126, Trenton, N. J.**

# $1,600 Cartercar



Model "L," 4 cylinder, 30-35 H.P., 110 inch wheel base, 5 passenger, Friction Transmission. Chain-in-Oil Drive, any number of speeds, will climb a 50% grade with load, including magneto, gas lamps, generator, horn, mats, tools, jack, etc. $1,600.

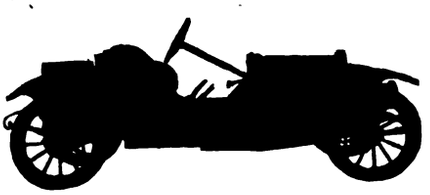
Model "H," 4 cylinder, 25 H.P., 100 inch wheel base, Runabout $1,100. Double Rumble $1,125 Double Divided Rear Seat $1,150. Miniature Tonneau $1,150.

Write for 1910 catalog.

**CARTERCAR CO.**
**Pontiac, Mich.**
Licensed Under Selden Patent.

# Badger 30 $1600

**112 inch wheel base, 34 inch wheels, quick detachable rims, Bosch dual ignition with storage battery, selective type transmission, Brown-Sharpe gears, F. & S. ball bearings.**

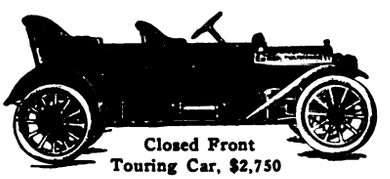


*Write for our new liberal agency proposition.*

**BADGER MOTOR CAR COMPANY, Columbus, Wis.**

# THE MARMON

**"The Easiest Riding Car in The World"**



**Closed Front Touring Car, $2,750**

Has won practically all the important long-distance racing events of America.

**NORDYKE & MARMON CO., Indianapolis, Ind.**
*(Estab. 1851)* Licensed under Selden patent.

# The ~~Inter-State~~ "40"

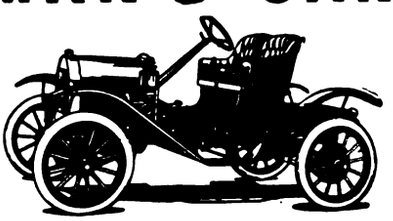
## Highest Grade—Moderate Price

**With its graceful lines, longer wheel base, luxury and roominess, power, speed and durability, the 1910 Inter-State car at $1,750 is your money's worth, dollar for dollar. No car at any price is better. Improvements this year are standard and found only in highest priced cars. Get our catalog.**

**INTER-STATE AUTOMOBILE CO.** MUNCIE, IND.
(10) Licensed under Selden patent.

# EVERYMAN'S CAR

**Seven Models**



**Send for Literature**

**The BRUSH $485.00**

**BRUSH RUNABOUT COMPANY**
**414 Baltimore Avenue, Detroit, Mich.**


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# MORGAN & WRIGHT TIRES ARE GOOD TIRES

**Not a Car of Advertised Value,**
**But a Car of Intrinsic Worth.**

# STERLING

**$1750**

Let us send you our Catalog

**ELKHART MOTOR CAR COMPANY, Elkhart, Ind.**

## FRANKLIN—1911

New Features Summarized: Doors to front seat; flush-sided, sloping-hood bodies; lower seats and lower effect generally; new oiling system, overcoming smoking; quiet valve action; engine air jacket arranged to give complete accessibility; more room between dash and front seat and a greater rake to steering column; deeper and more luxurious upholstering; still larger tires; all motors accurately balanced.

¶ Franklin resilient, full-elliptic-spring, wood-chassis-frame construction gives the only luxurious riding. There is no fatigue; the automobile does not deteriorate.

¶ Franklin air cooling is the ideal system for an automobile engine; it affords the lightest, simplest construction; it does not require attention; it is independent of climate and weather conditions; it does all that water cooling can do, and more; it can not break down or get out of order; there are no working parts not required in the engine itself. It is superior in every way to any other cooling system.

H H FRANKLIN MANUFACTURING COMPANY Syracuse N Y
Licensed under Selden Patent
FRANKLIN AUTOMOBILE COMPANY Syracuse N Y
Sole Distributor

## THE SELDEN CAR
FOR 1910

| | |
|---|---|
| 5-Passenger Touring Car | $2,000 |
| 3-Passenger Roadster | 2,000 |
| 4-Passenger Torpedo Tonneau (Magneto Included) | 2,250 |
| 7-Passenger Touring Car (Magneto Included) | 2,500 |

Booklet and specifications upon application.

**AGENTS WANTED IN UNOCCUPIED TERRITORY.**

**SELDEN MOTOR VEHICLE CO.**

**GEO. B. SELDEN, President, - ROCHESTER, N. Y.**

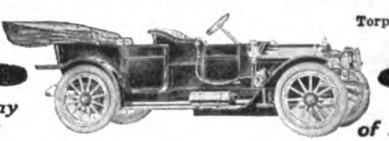
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## COLE 30-1911
**The Classiest Car of Them All**

The sturdiest, most rugged, most practical car you can wish for, with the same graceful, fetching lines, rich upholstering and perfect mechanism for which you must pay a thousand dollars more in other cars.

**C. P. Henderson, Sales Department,**
**Cole Motor Car Company, Indianapolis, Ind.**

"Fore-Dore" Touring Car, 30-36 H. P. $1,650



Cole Flyer Torpedo Roadster, 30 H. P. $1,500

*Write Today for Booklet* *and Name of Local Dealer*

## K-R-I-T
**"The car with the invisible start."**

96 in. wheel base
32 in. wheels

**22½ H. P. $800**

Sliding gear transmission. Multiple disc clutch. Weight, 1200 lbs.



**Runabout $800.**
**Roadster $825.**
**Surrey $850.**

Write for Catalog

**K-R-I-T Motor Car Company**
**DETROIT**

THE THOMAS FLYER is the champion endurance car of the world. Over 80 per cent. of the people who own Thomas Flyers previously owned other cars. They were in a position to appreciate automobile values. The Thomas Flyer is now their unqualified choice.

The E. R. Thomas Motor Company maintains a force of traveling experts who periodically call upon every Thomas owner and make sure that his car is in good condition. Let us send you some of the letters from our owners and some of our interesting engineering literature.

**E. R. THOMAS MOTOR CO., Buffalo, N.Y.**

Licensed under Selden Patent.

THE MASTER INTERRUPTER — MADE IN GERMANY

**The Master Magneto!**

TRUE HIGH TENSION TYPE

**J. S. BRETZ COMPANY**

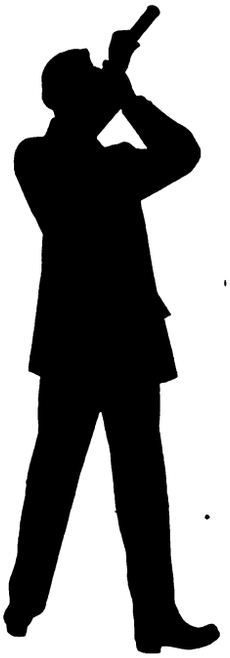
SOLE IMPORTERS

TIMES BUILDING NEW YORK


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ALUMALOYD SHEETS

A SPECIAL ANALYSIS SHEET COATED WITH ALUMINUM-ALLOYED METAL



**They're worth looking up, Mr. Auto Builder, Because—**

You cut out time-consuming, output-retarding,, expensive, preliminary work and get down to business in the finishing department, right at the start.

No sandpapering, rust-scouring, pumice-stoning, putty coating or applying of roughstuff. All ALUMALOYD requires for a high and durable finish is a primer, a one-color coat, a rubbing and a finishing varnish.

Honestly, can you beat that? And aren't you beating yourself out of time, capacity and money by loitering along in the old slow way?

Ask for the details NOW.

**THE STARK ROLLING MILL CO.**
**Alumaloyd Sheet Department**
**Canton, Ohio**

Mosler Spit Fire

THE PLUG WITH THE DEEPEST CHAMBER

Leads the World

READ NOTICE! READ

Our SPIT-FIRE Plugs are for sale by all legitimate dealers and jobbers.

If you cannot get a delivery— THERE'S A REASON!

WRITE US DIRECT

WE CAN SHIP ON TWENTY-FOUR HOURS' NOTICE

Dealers and jobbers beware! We protect our trade mark FOR YOUR PROTECTION

PACKED IN THIS BOX



DONT BUY IMITATIONS

A. R. MOSLER & Co. 163 W 29TH ST. NEW YORK.

Diamond

The Pioneer Motor Tires of America

FIRST—BEST

**THE DIAMOND RUBBER COMPANY, Akron, Ohio**

SERVICE and SATISFACTION

are assured when

G&J TIRES

are used.

**G & J TIRE CO., Indianapolis, Ind.**
**We Sell Continental Demountable Rims.**




A Real Battery
AT A REAL BARGAIN

We have on hand a number of 6 v. 60 amp. dry type storage batteries, built for us by one of the best known manufacturers. These batteries were built to sell at $26.00 and are worth the money, but as we have accidentally become overstocked, we offer them while they last at $12.50.

No better battery is built or sold at any price.

**EXCELSIOR SUPPLY CO.** (*Estab. 1876*) **Randolph St. Bridge CHICAGO, ILL.**

Real Radiators

made of individual square tubes so much imitated in appearance, only.

FEDDERS RADIATORS

are just what they appear to be—genuine square tubes. Furnished with tubes "staggered" or Mercedes finish.

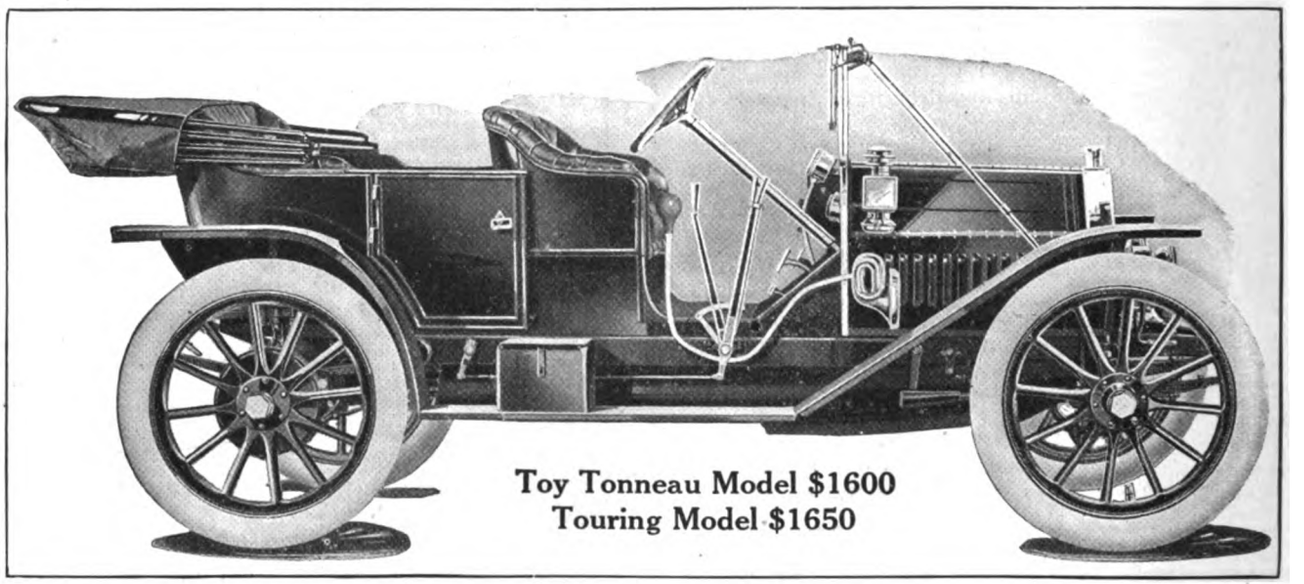
**You See the Fedders on the Finest Cars**

**FEDDERS MANUFACTURING WORKS, Buffalo, N. Y.**


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# *The Pleasure of Driving a*
# Glidden Tour Winner

and being able to say to your friends that ***your car*** beat every car in the 1910 Glidden Tour, is certainly something to be proud of.



Toy Tonneau Model $1600
Touring Model $1650

But that does not begin to compare with the delightful experience of owning a car that is practically ***trouble-proof*** — that is ***always*** ready—***always*** responds to your demands.

***That is why*** the ***dependable*** "Dreadnought" 1911 Moline stands out so ***decidedly*** ahead of others.

***That is why*** it won so ***decisively*** over every car entered in the 1910 Glidden Run.

***That is why it is the car for you.***

***Remember,*** in this terriffic, strenuous tour the three Molines ***did not carry a single extra repair part,*** not even a cotter pin, nor did the drivers remove the seals on the tool bags throughout the 2852 miles.

No other cars ***dared*** to do this.

No other car ***could*** do it as is evidenced by their records.

Then, remember, the total penalties of all three Molines were less than any other ***one*** car entered (except one).

That's the kind of car ***you*** want, is it not?

***Brief Specifications:***

**Power**—35 horse power.
**Motor**—4 cylinder 4 in. bore, 6 in. stroke, water cooled, thermal circulation.
**Drive**—Shaft.
**Transmission**—Vertical, selective, three speeds forward, one reverse. Full roller bearing.
**Rear Axle**—Bevel gear.
**Front Axle**—I Beam.
**Lubrication**—Precision combined with splash system.
**Ignition**—Double independent system.
**Control**—Spark and throttle on steering wheel—toe accelerator, muffler cut out.
**Brakes**—14 in. double acting.
**Clutch**—Leather faced, cone, cork inserts.
**Wheels**—[illegible] spoke artillery.
**Tires**—3½ x 36.
**Wheel Base**—112 inches.
**Price**—$1600 and $1650.

Write for Booklet No. 61, "The Story of the Glidden Tour," and read more startling facts about the car that won over every car entered in the 1910 Glidden Tour.

Moline
**Automobile Co.**
**61 Root Street East Moline, Ill.**

***To Dealers!***

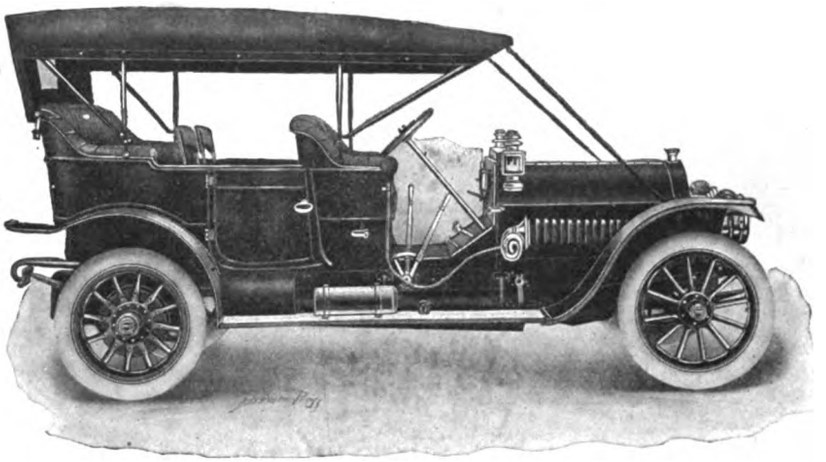
You want to handle a car that has won over competition for the same reasons the owners want it. Because it has ***demonstrated its superiority*** in a manner that cannot be refuted.

What better talking points could you desire than the records of the winning Moline?

We want more dealers to handle the increased number of cars the fame of the 1911 Moline has created a demand for. Write for territory ***now.***


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# 1911 ALCO 1911



6 Cylinder, 60 H. P. Touring Car, Shaft Drive.

## SIXTY H. P. ALCO, Six Cylinders, Shaft Drive

This is the ALCO leader, the great car that is always ready and is equal to anything and everything—Powerful, Enduring, Silent—the car of many records and the same basic model that won the Vanderbilt cup. Some interesting new features are incorporated in the 1911 "Sixty," changes of detail that are all in the line of refinement and will make this ALCO masterpiece still more distinctly superior and more than ever "a lasting luxury." **It is absolutely noiseless.**

With 7-passenger touring body, toy tonneau, or runabout..... **$6,000.00**
With limousine or landaulet body..... **6,750.00**

## FORTY H. P. ALCO, Four Cylinders, Shaft Drive

A larger motor, with cylinders 130 m/m x 140m/m (5⅛" x 5½") has been incorporated in this model (the original "Anti-Fatigue Car"); also other refinements corresponding to those in the "Sixty." This gives a considerable increase in power, and with it there is a substantial reduction in price, thus multiplying the efficiency and economy of a car that always has been notable for these qualities. **It is as clean and silent as the snow.**

With 7-passenger touring body, toy tonneau, or runabout..... **$4,500.00**
With limousine or landaulet body..... **5,000.00**

## THREE-TON ALCO TRUCK, Chain Drive

Here is a motor truck that has been making good in high places during the last three years, while others were experimenting. It has been adopted by big corporations after long competitive tests. Distinctive for its economy of upkeep, ease of handling and continuity of service. Various improvements of detail are in the latest models. Those who use it say: **"It pays."**

With express type of body and top..... **$3,650.00**
Chassis..... **2,400.00**

**22 H. P. Town Car** (Limousine or Landaulet), **$4,350.—16 H. P. Cab, $3,350.00**

Except for minor refinements these models are unchanged.

**Ultimate economy in motor cars and trucks depends upon far-sightedness when purchasing. Remember, it was a user who first said of the ALCO**

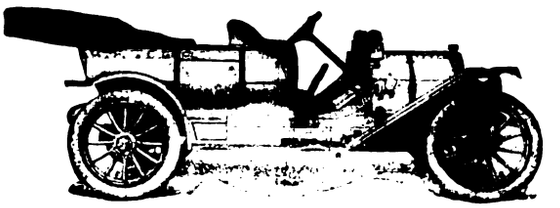
**"It Stays New"**

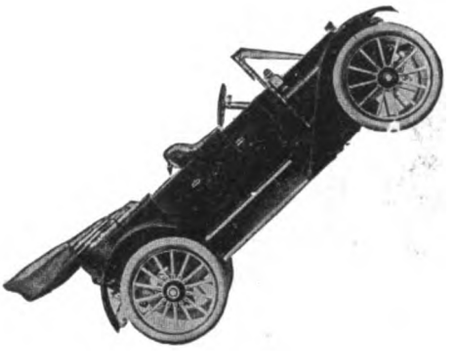
## American Locomotive Company

**1886 BROADWAY, NEW YORK**

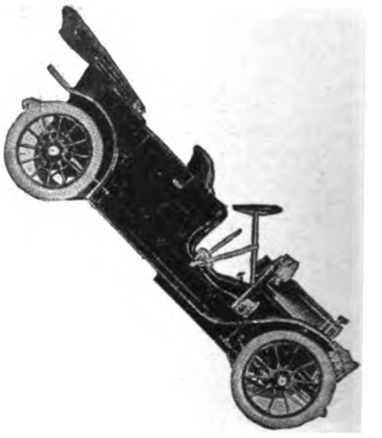
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# The Value of an Accessory as a Measure of Car Value

In the purchase of a car even the most experienced motorist must base his judgment largely upon appearances. For the service value of an automobile can only be proven by the actual test of continued use.

It is then that the value of the accessories in determining car value becomes most apparent. For it is safe to say that a manufacturer who is paying the price for highest grade, reliable accessories is building his car throughout with the same reliability and thoroughness in mind.

That is one reason why the appearance of the **Warner Auto-Meter** as a part of the regular equipment of many 1911 cars will be welcomed by the motorist.

It furnishes an additional measure of car value—and a strong one.

For the manufacturer who equips with the **Warner Auto-Meter** is paying three times the price of the next best instrument. And if he is willing to do this to insure your continued satisfaction with your speed-indicator, certainly he is doing no less to insure your satisfaction with his car.

You will have no regrets when you buy such a car, either because of the speed-indicator or the car itself.

## Warner Instrument Company, 979 Wheeler Ave., Beloit, Wis.

**Branches:**

ATLANTA, 116 Edgewood Ave.
BOSTON, 925 Boylston St.
BUFFALO, 720 Main St.
CHICAGO, 2420 Michigan Ave.
CINCINNATI, 807 Main St.
CLEVELAND, 2062 Euclid Ave.
DENVER, 1518 Broadway.
DETROIT, 870 Woodward Ave.
INDIANAPOLIS, 330-331 N. Illinois St.
KANSAS CITY, 1613 Grand Ave.
LOS ANGELES, 748 S. Olive St.
NEW YORK CITY, 1902 Broadway.
PHILADELPHIA, 302 N. Broad St.
PITTSBURG, 5940 Kirkwood St.
SAN FRANCISCO, 36-38 Van Ness Ave.
PORTLAND, ORE., 14 N. Seventh St.
SEATTLE, 611 E. Pike St.
ST. LOUIS, 3923 Olive St.



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# Many a man doesn't know he has a Mayo Radiator on his car—he never has cause to find out



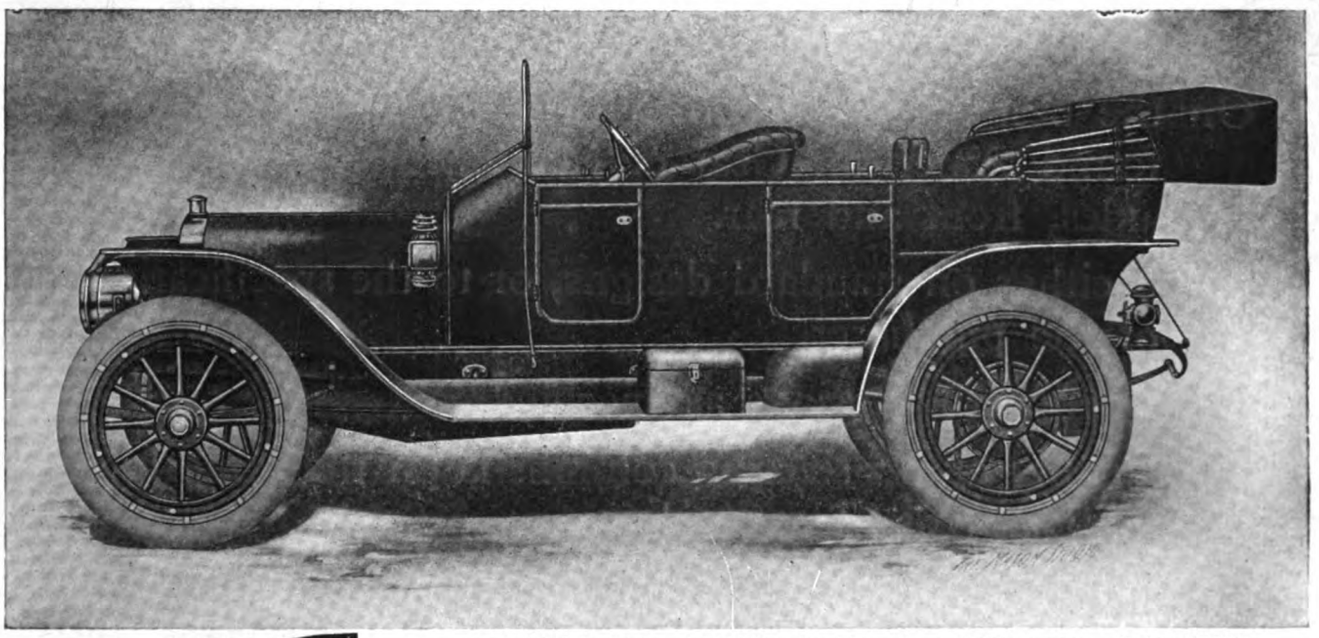
¶ Mayo Radiators are the most inconspicuous, as they are one of the most useful components of many of America's best known cars of quality.

¶ The very unobtrusiveness of Mayo Radiators is the most eloquent testimonial of their worth.

¶ Mayo Radiators junction perfectly—and for all time.

¶ The use of Mayo Radiators is a pretty fair indication of a quality car.

**MAYO RADIATOR CO., New Haven, Conn.**



Model "R" Series "B" Touring Car. 5 or 7 Passenger. Price $3500.

Knox

1911 SERIES

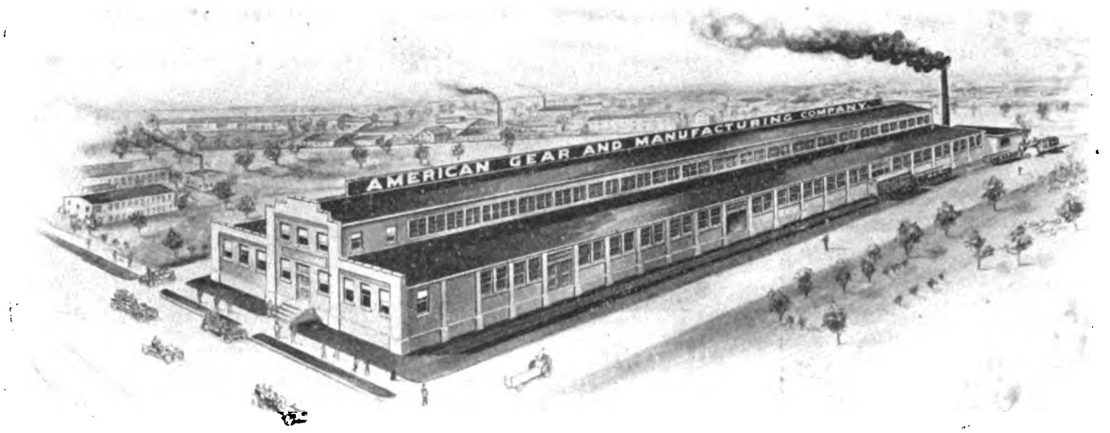
Up-to-Date Types and Construction

Write for advance information

KNOX AUTOMOBILE COMPANY, Licensed under Selden patent. Springfield, Mass.


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# The Exceptional Facilities of This Big Plant




**are devoted exclusively to the manufacture of**

# Axles and Steering Columns

On the best and best known of the small cars will be found American Gear & Manufacturing Company axles, front and rear.

Made either on standard designs, or to the specifications of the purchaser.

Equipped with bearings as specified.

The quality of our steering columns is on the same high level as that of our axles.

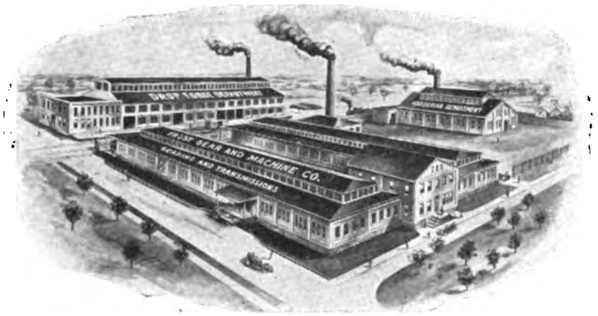
An inquiry will bring detailed information that will doubtless be of benefit.

**American Gear & Manufacturing Co., Jackson, Mich.**

**SALES AGENTS:**

**AMERICAN DISTRIBUTING CO., 1030 S. Park Street, Jackson, Mich.**

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# Why the Industry Recognizes Jackson's Lead as a Parts-Producing Center

With an output that totals annually the sum of $5,000,000 and facilities in five large plants for the unhurried production of parts, the automobile industry justly regards Jackson as a leading supply center.

Makers of the costliest cars—cars of the highest standing and quality—buy parts from these Jackson manufacturers:

**Frost Gear & Machine Company**
**Sparks-Withington Company**
**American Gear & Manufacturing Company**
**Hayes Wheel Company**
**Lewis Spring & Axle Company**

Manufacturing:

**Front and Rear Axles**
**Wheels, Springs**
**Transmission Gear Sets**
**Steering and Side Lever Control Sets**
**Fans and other Pressed Metal Parts**
**Drop Forgings**

The grouping in Jackson of these plants—and the centralization of their sales in the American Distributing Company—offers certain tangible advantages, the value of which has become generally recognized.

For instance, none of the five manufacturers in Jackson need turn any of his energies or facilities aside from manufacturing.

All orders are placed through the single sales organization, and by it distributed among the plants.

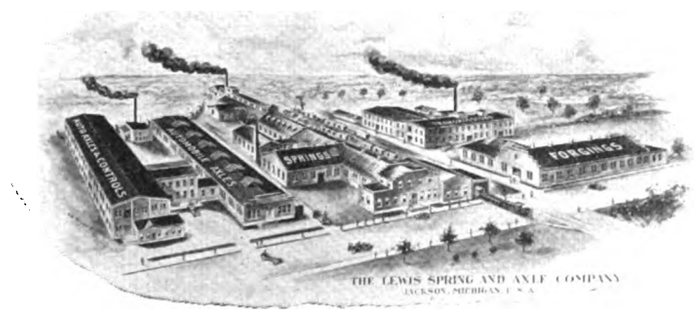
This organization is constantly on the alert in the interest of the parts buyers—seeing that shipments are made as specified; making the most in the saving of time and money, of the purchase of closely related parts.

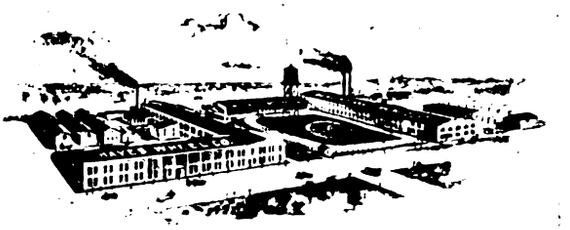
Thus the automobile manufacturer can and does buy parts in Jackson, enjoying all the advantages of time and money saved, through the agency of five of the largest parts makers in the country and the only organization equipped as this for the giving of actual service.

## AMERICAN DISTRIBUTING CO., 1030 S. Park Street, Jackson, Mich.

**Sales Agents for**

LEWIS SPRING & AXLE CO. FROST GEAR & MACHINE GO. HAYES WHEEL CO.
SPARKS-WITHINGTON CO. AMERICAN GEAR & MFG. CO.



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# The Dayton Motor Car Co.

## Dayton, Ohio

place the largest individual order ever given for demountable rims. All 1911 Stoddard-Dayton and Courier cars will be equipped with

# THE STANDARD UNIVERSAL RIM

MANUFACTURED BY

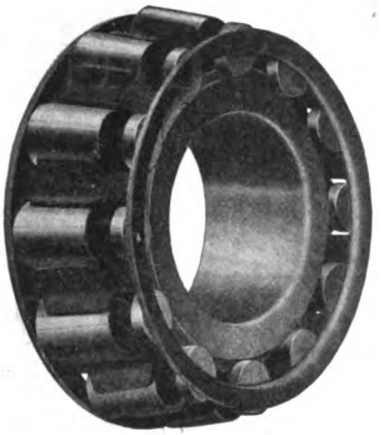
## The United Rim Company

### Akron, Ohio

The wholesale adoption of the Standard Universal Rim by representative automobile manufacturers is the best argument in favor of its practical and desirable demountable and quick detachable features.

# FITS ALL TIRES


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# Timken Roller Bearings

While it is both right and wise to buy as cheaply as possible, of course, providing you get value commensurate with the price you pay, and please remember that values are made by quality and price, it is always well to discriminate against any article that offers too much quality at too little a price, and insist upon values only.

THE TIMKEN ROLLER BEARING CO.
Canton, Ohio

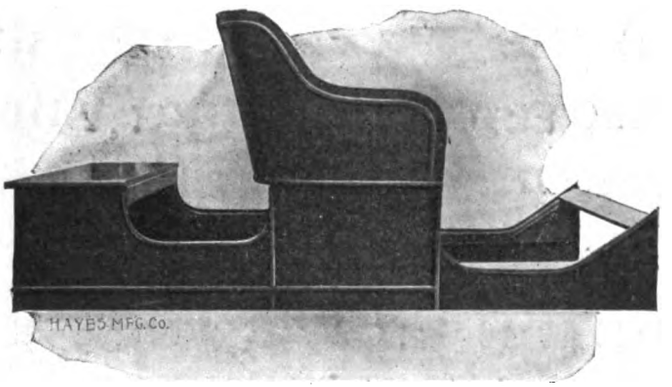
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# THE THREE GREAT LINKS

# Our Product
# Our Factories Our Name

OUR EQUIPMENT IS VERY COMPLETE FOR THE MANUFACTURE OF:

Metal Bodies
Fenders
Fender Irons
Hoods
Motor Pans
Tanks
Dashes
Tool and Battery Boxes
Sheet Metal Parts and Forgings

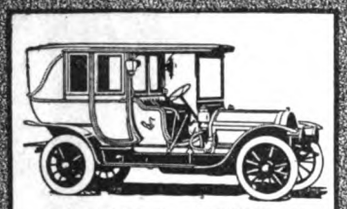



TWO LARGE PLANTS ENTIRELY SEPARATE, GIVING PROTECTION IN CASE OF FIRE. CAPACITY FOR PARTS FOR 5000 CARS PER MONTH.

## HAYES MANUFACTURING CO.
DETROIT, MICHIGAN


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# TRUFFAULT-HARTFORD SHOCK ABSORBER


PIERCE ARROW


APPERSON


THOMAS


AMERICAN

## Wonderful Tribute

Here are four world-famous cars that are regularly equipped with Truffault-Hartford Shock Absorbers! Could you ask for more glowing endorsement of true worth—for greater tribute to the ease-giving, expense-saving qualities of Truffault-Hartford Shock Absorbers—than that they are regularly included in the standard equipment of twenty such leading cars?

## Truffault-Hartford
### SHOCK ABSORBERS

are an absolute essential to speed with safety—to reducing the racking wear and tear on tires, mechanical parts and in insuring thorough motoring comfort.

It has well been said that they make

**"All Roads—Smooth Roads"**

## To You—Mr. Dealer:

We want more agents. The tremendous popularity and wise demand for Truffault-Hartfords offer you an elegant selling proposition. And we stand ready to co-operate with you in every way. You merely take the order—get specifications for size of Truffault-Hartford required—and we ship it to you with blueprint photographs showing just how to put it on. No outlay of capital is required. To all of our dealers we furnish a Truffault-Hartford Window Sign. This connects you at once with—and gives you all the benefits of our big general advertising campaign.

Send today for complete information—together with a copy of our highly entertaining monthly publication—Auto Comfort.

**Truffault-Hartford Models**

Standard for cars over 2,500 lbs., per set **$60.00**

Intermediate for cars from 1,400 to 2,500 lbs., **$45.00**

"Junior" for the smaller cars weighing 1,400 lbs. or thereabout, **$25.00**

"Juniorette" for little cars under 1,400 lbs., **$15.00**

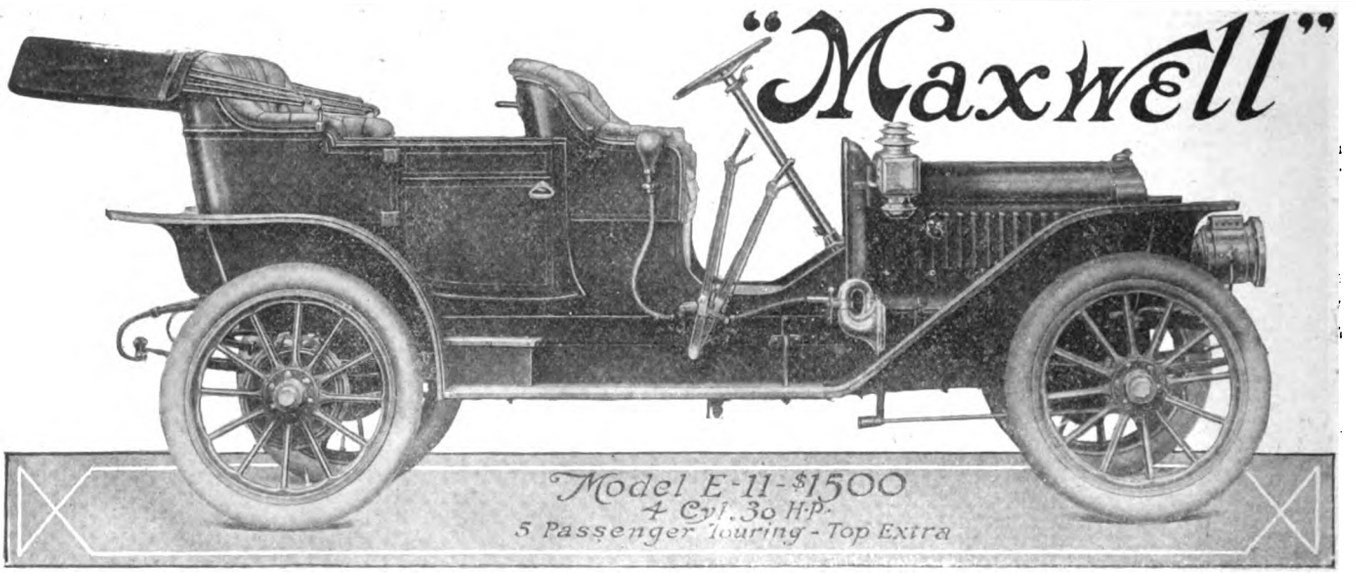
## Hartford Suspension Co.

EDWARD V. HARTFORD, Pres.

**164 Bay Street, Jersey City**

New York, 212-214 West 88th St.
Chicago, 1458 Michigan Ave.
Boston, 319 Columbus Ave.
Philadelphia, 250 N. Broad St.


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# NEW Models Ready NOW!

**A New Standard of Car Value**

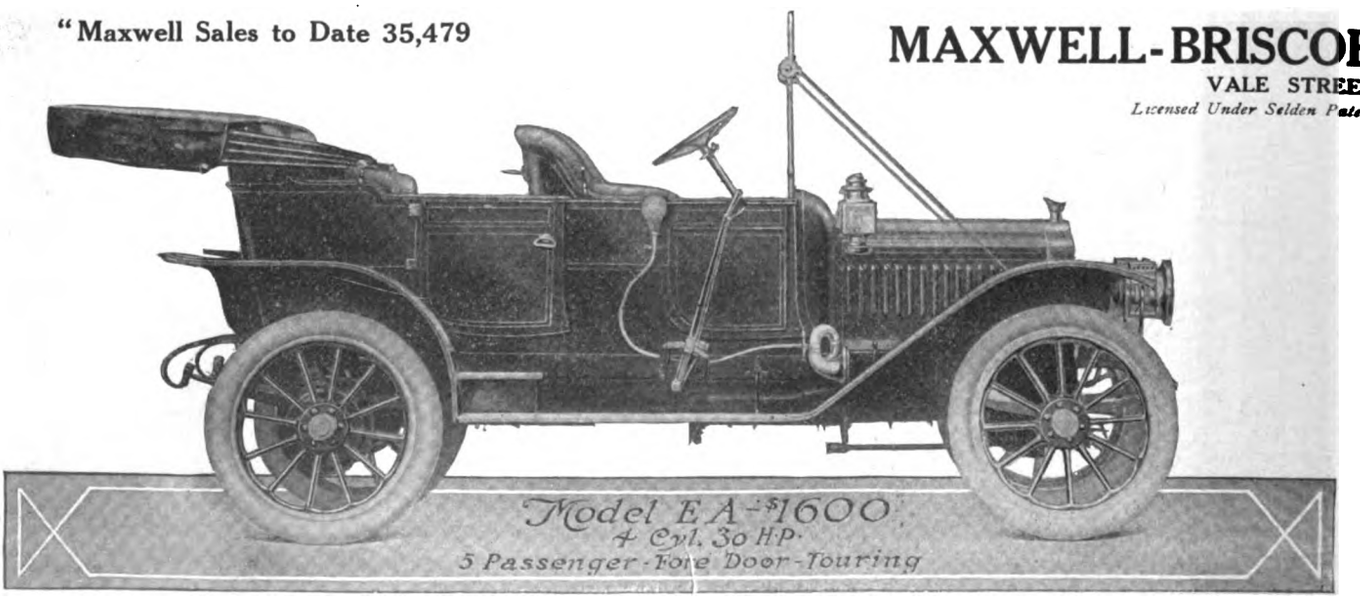
The Maxwell for 1911 is out! And again it has broken all precedents for the tremendous value it offers in a car of moderate price. It has always been big and roomy. It has always been known for its reliability at all times—its wonderful durability—its mechanical simplicity. In every respect it has always stood head and shoulders above others cars selling at anywhere near the price. But this year the strikingly attractive designs of the Maxwell and its many added refinements of equipment have created a still higher standard of Maxwell value.

**Rational Speed, Luxurious Comfort**

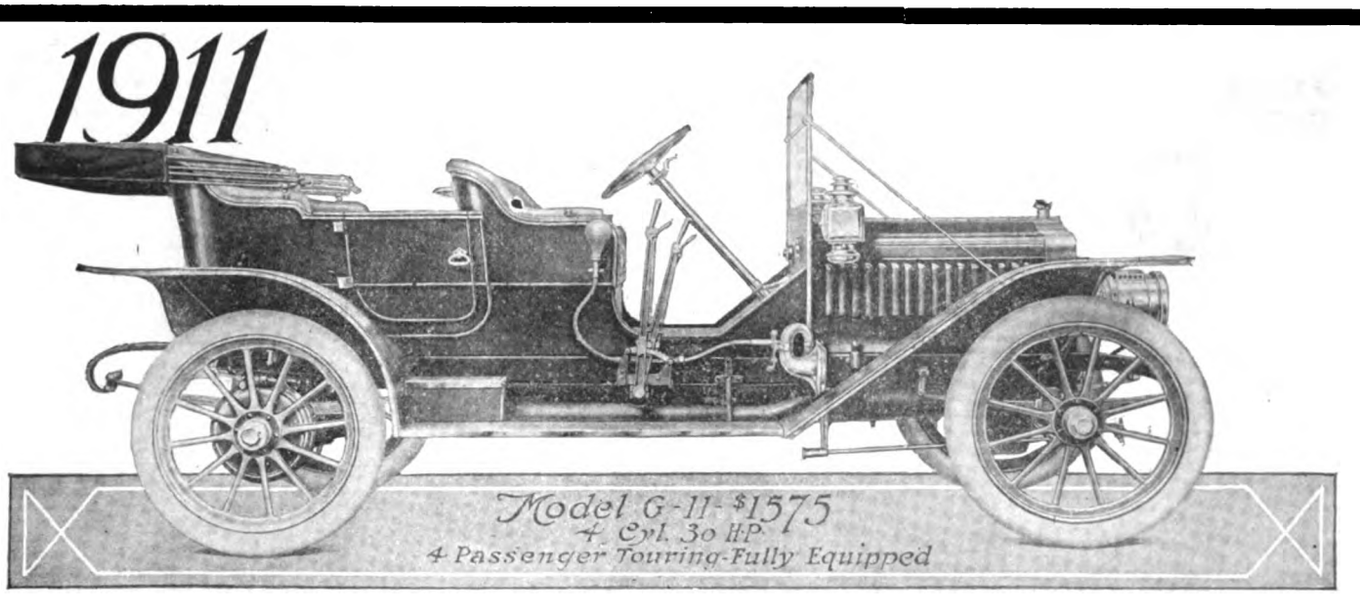
We believe in uniformity. The Maxwell is not built for speed to the exclusion of more vital motoring requirements. Beautiful appearance has not alone been attained to the sacrifice of mechanical efficiency. Our idea is to equal reliability and superiority in every part—in a word—composite perfection. That's why the Maxwell doesn't break down first here then there like many cars. They give years of staunch durable service—have an abundance of power—offer all the speed any sane driver could ask for or use.

"Maxwell Sales to Date 35,479

**MAXWELL-BRISCOE**
VALE STREET
*Licensed Under Selden Patent*




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## Beauty In Every Line—And the Same MAXWELL—Reliability, Simplicity and Durability

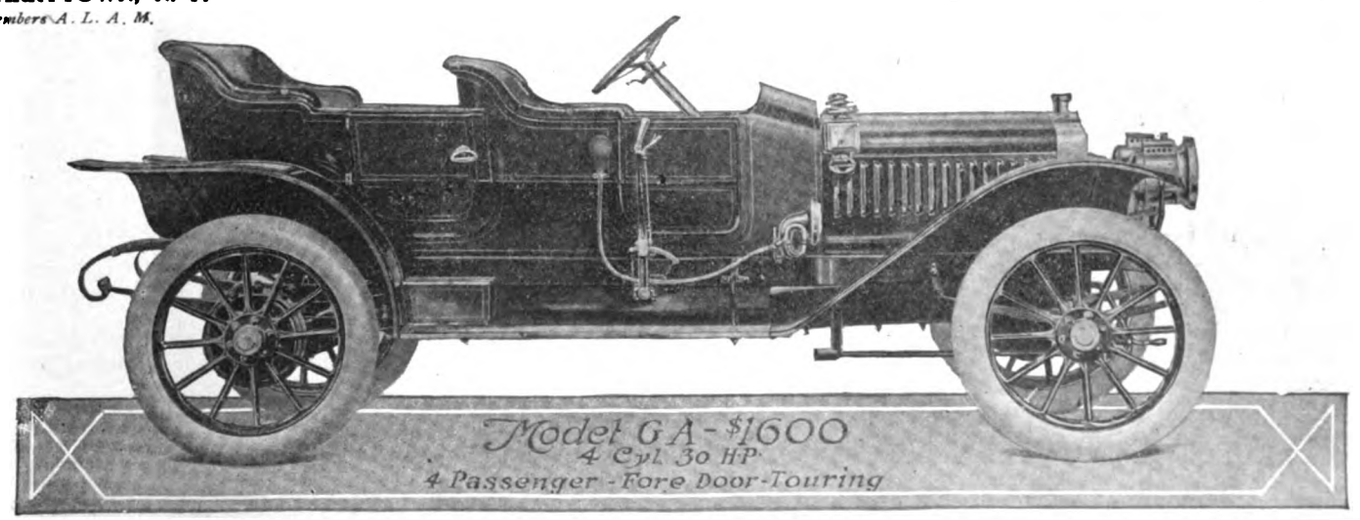
**Well Known Facts** It is a well-known fact that the Maxwell is the great "Economy Car"—that our biggest touring cars "Can be run 5,000 miles a year at an average total cost of $3.98 a week." Nearly everybody knows of their perfect scores in grilling endurance contests—of the record the Maxwell holds for covering over 10,000 miles without having the engine stopped once. And you know it is just this kind of a car that you want for every member of your family—a car that you can go out in any time and anywhere regardless of roads or weather conditions—and be sure that you will get back.

**August—September Deliveries** We will begin the deliveries of Maxwell 1911 models in August—an unparalleled precedent in the history of motordom. In this early delivery as in all respects the far-famed and much-copied Maxwell leads. Our tremendous manufacturing facilities make it possible. To the many who are looking for the very best car they can buy at a moderate price—an August delivery holds out just one more inducement for the purchase of a Maxwell car. Our guarantee stands back of the delivery.

**Helpful Automobile Literature** **We want you to know all about automobiles. For the more you know about automobiles generally the more you will want a Maxwell. "How To Judge An Automobile" is a practical treatise which describes and illustrates automobile mechanism from the ground up. And our semi-monthly publication "The Co-operator" keeps you posted fully on all motoring subjects. We will gladly send you these free, together with our beautiful catalogue showing all of the new Maxwell models—upon request. Mail postal to-day. Just say "Mail Books."**

**MOTOR COMPANY**
**TARRYTOWN, N. Y.**
*Members A. L. A. M.*

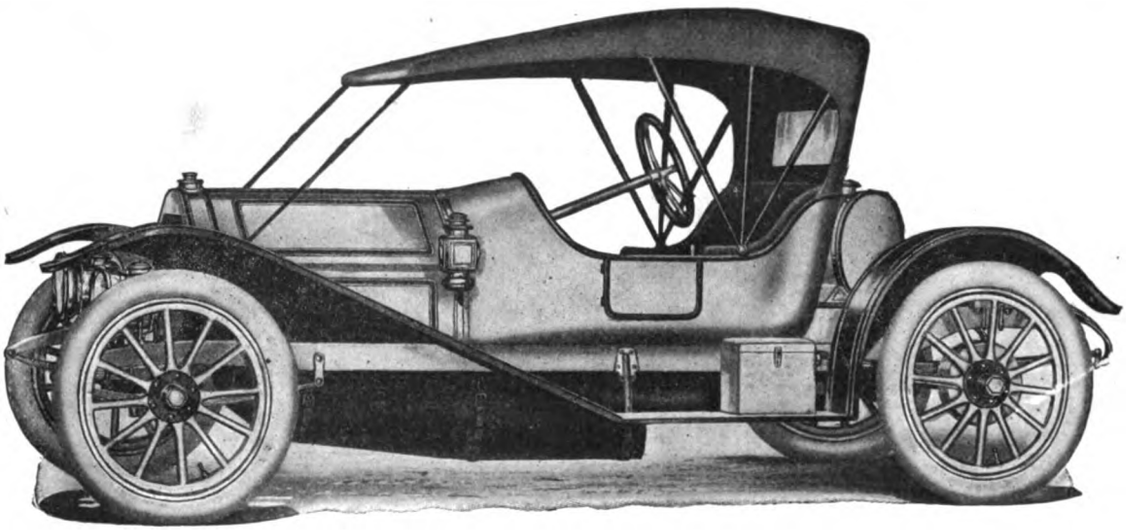
**FACTORIES:** New Castle, Ind. Providence, R. I.
Kingsland Point, N. Y. Tarrytown, N. Y.




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## Down to a Legitimate Manufacturing Basis

# De TAMBLE



36 H. P. 1911 Special. List $1000

**IF** we expected to declare 1000 per cent. dividends; we did not make everything that goes into the car; we paid two profits and were mere assemblers; we could not offer you this extraordinary proposition.

**Each car dependably guaranteed for one year.** This guarantee is a protection to every purchaser.

**SOME REAL LIVE AGENTS CAN GET IN ON THIS IF THEY ACT QUICK**

**SPECIFICATIONS:**

**MOTOR**—Four cylinder, 4¼ x 4½, 36 H. P. Cylinders cast in pairs. Crank shaft carried on three large bearings of Parsons White Metal. Motor, clutch and transmission assembly is one unit, all parts being enclosed and running in oil. Motor is of "L" type, with intake and exhaust manifold and carburetor on left side of motor.

**CLUTCH**—Multiple disc clutch enclosed in flywheel.

**TRANSMISSION**—3 speeds and reverse selective type sliding gear. Gears cut on Fellows Gear Shaper of 15-20 point open hearth carbon steel and properly heat treated. Vanadium steel shafts. Annular ball bearings on main and counter shaft.

**DRIVE**—Enclosed drive shaft with one universal joint.

**REAR AXLE**—Ball bearings of very large size are used throughout the rear axle, taking all radial load and thrust perfectly. The differential housing being in one piece with cap allows for the adjustment or inspection of bearings or removal of the differential without taking the axle apart. This axle is made by one of the oldest and best known makers.

**FRONT AXLE**—One piece drop forged "I" beam with ball bearings.

**SPRINGS**—Half elliptic front and ¾ scroll elliptic rear.

**WHEELS**—34 in.

**TIRES**—34 in. x 3½ in.

**FRAME**—Pressed steel with kick up over rear axle. Narrow front.

**WHEEL BASE**—112 inches.

**STEERING GEAR**—Worm and gear with 18-in. wheel; spark and throttle levers on top of wheel.

**CONTROL**—Gear Shift and emergency brake on side levers. Clutch in left pedal and primary brakes in right pedal.

**BRAKES**—Foot brake contracting on rear wheels. Emergency brake internal expanding in rear wheels.

**RADIATOR**—Highest grade vertical tube type.

**OILING**—Self-contained constant level oiling system; oil reservoir integral with lower half of crank case.

**CARBURETOR**—Schebler.

**COOLING SYSTEM**—Vertical tube type radiator, circulation being maintained by a centrifugal force pump.

**BODY**—Roadster, two-passenger, torpedo type.

**UPHOLSTERING**—A1 M.-B. leather and curled hair.

**REGULAR EQUIPMENT**—Two gas lamps and generator; two oil lamps and tail lamp, horn, set of tools, including jack, in pressed steel tool box.

**Five Passenger Touring Car, Open Type, $1.100. Standard Fore-Door Torpedo Type, Five Passenger Touring Body, $1,200.**

## THE De TAMBLE MOTORS CO., Anderson, Ind.


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# McCORD Products

have always been highly regarded by the automobile world but today with our new factory and wonderful organization they are recognized as leaders.

There is hardly an American motor car that doesn't carry something from our factory.

## McCord Mfg. Co.

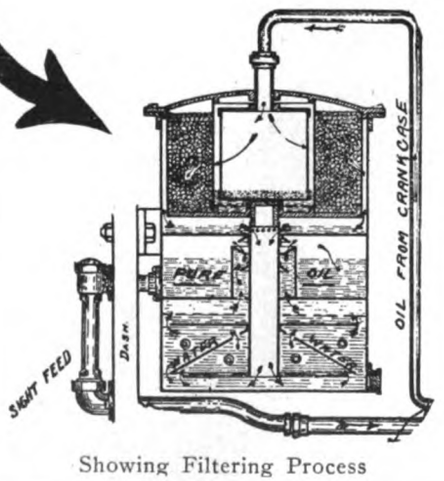
DETROIT

RADIATORS, FANS, LUBRICATORS, PUMPS, McKIM GASKETS AND OTHER SPECIALTIES


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# H·F·M
# AUTOMATIC OIL FILTERING & LUBRICATING SYSTEM

**The First Radical and Distinct Improvement in Automobile Lubricating Methods Since the Industry Began.**




Showing Filtering Process

THE MOTOR is the life of the car; and proper lubrication greatly prolongs the life of the motor. Proper lubrication depends not so much on the original quality of the oil, as on its condition after a few days' use. The finest lubricating oil in the world is worthless when mixed with dust and dirt and allowed to simply burn itself to death in a lubricating system where the same burned out, dirty oil does continuous duty from cylinders to bearings and from bearings to cylinders.

**HOT, DIRTY, GRITTY OIL IS NOT A LUBRICANT.**

CLEAN, COOL OIL, ALL THE TIME, makes your motor hum like a top and keeps it in perfect condition, years after the poorly lubricated motor has been relegated to the scrap heap.

The H. F. M. SYSTEM automatically removes all "trouble-breeding" foreign matter from the lubricating oil. PERFECTLY SIMPLE AND TROUBLE PROOF, it thoroly filters the oil, then washes it thro cool water until it is perfectly clean before it is returned to the crank case to perform its lubricating duties and repeat the operation continuously.

Backed by 20 years' experience, and thoroly covered by strong patents which we control.

The H. F. M. SYSTEM claims your attention now and sooner or later you must adopt it.

Write at once for further information.

**THE AL-TON MOTOR ACCESSORY COMPANY**

**East South Street** **Akron, Ohio**


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# Have You Read the 1911 HAYNES Specifications?

You are familiar with many Haynes features. Do you know that it is generally agreed among makers of high grade cars that the car of the future will be in size just like the Model 20 Haynes? The Haynes has the same room, class, comfort, style, that your customer will ask for three years from now.

## Model 20

# HAYNES

## $2000

### Read These Specifications:

**Frame**—Cold rolled pressed steel, 3-inch drop, 3-inch offset.

**Wheel Base**—114 inches.

**Motor**—4¼, 5-inch stroke; T-head cylinders cast in pairs, 2 5-16 inch valves; ½ inch offset. 35-40 H. P. 4-point suspension.

**Ignition**—Bosch-Dual Magneto, with battery, coil under hood.

**Carburetor**—Schebler Model "L" 1¼ inch.

**Lubrication**—Splash and force feed, oil reservoir in bottom part of crank-case and is filled through bleeder pipe on top of crank-case.

**Control**—Stationary quadrant at top of steering post; short lever for spark, long for throttle, also foot accelerator.

**Steering Column**—Worm-and-gear type, adjustable. 17-inch aluminum spider, wood-filled wheel.

**Clutch**—Haynes contracting steel band on bronze drum. Supported by crank shaft. Easily adjusted and lubricated.

**Transmission**—Selective type, three speeds forward, one reverse, Timken roller bearings. Operated through H-slotted bracket. Supported from two rear arms of engine base.

**Propeller Shaft**—Forged. Two universal joints, housed and packed with hard oil.

**Rear Axle**—Timken full floating type, pressed steel housing supporting weight of car. 1 5-16-inch shaft.

**Front Axle**—Single-piece I-beam, 2-inch drop forged spring seat forged integral. Spindles, 1 5-16-inch diameter. Timken roller bearings.

**Wheels**—Artillery type, wood, 12 heavy spokes front and rear. Marsh Q. D. Rims. Timken roller bearings both front and rear.

**Tires**—Quick detachable, 34-inch by 4-inch front and rear.

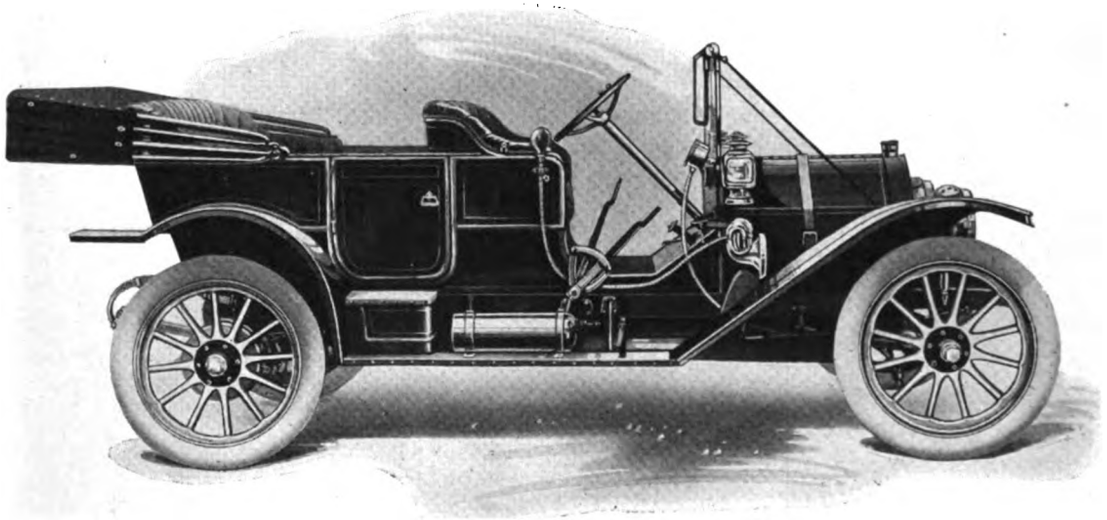
**Springs**—Front, semi-elliptic, 39 inches long, 2 inches wide, 6 leaves. Rear, ¾ elliptic, 41½ inches long, 2 inches wide, 6 leaves. Grease cups front and rear.

**Brakes**—Internal and external on rear wheels. Drum, 13-inch diameter by 2-inch face. Disappearing foot pedal operates external service brake, and lever at right side of front seat, the internal emergency brake.

**Body**—3-ply laminated poplar. Hand-buffed black leather spring backs to both seats, filled with super-extra gray hair. Five-passenger "Tourist." Four-passenger "Suburban" with doors in front. Two-passenger "Hiker" with doors in front.

**Equipment**—Top, top cover, glass front, two Gray & Davis gas lamps, three oil lamps, Type B Prest-o-lite tank, Warner Auto-Meter, coat and foot rails, tire irons, full equipment of tools, etc.

**Price**—$2,000, fully equipped.



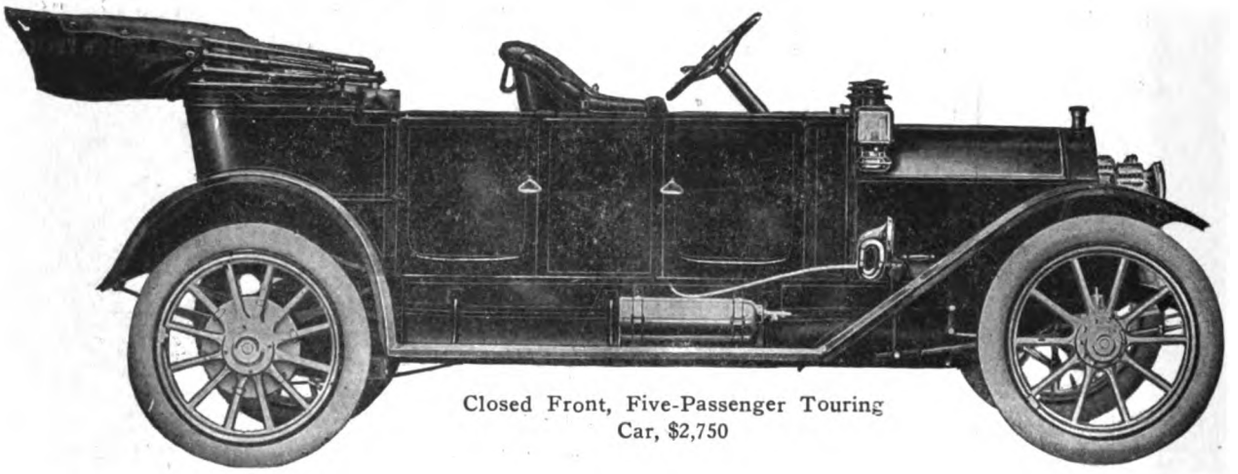
**$2000, Fully Equipped**

**HAYNES AUTOMOBILE CO.** Licensed under Selden patent. **Station C, Kokomo, Indiana**

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# THE MARMON

**"The Easiest Riding Car in The World"**



Closed Front, Five-Passenger Touring Car, $2,750

## The Supreme Test of a Car

EVERY man that has driven a motor car understands that the supreme test of a car lies in the long races. The terrific strain of long sustained high speed searches out every possible weakness of construction, workmanship or design and proves the stamina of a car as no other test can.

We doubt if the motoring public fully appreciates the amazing showing made by Marmon stock chassis under this merciless test. No car in Europe or America has ever won such a remarkable list of records. Unlike the records at Brooklands, England, they were not made against time under favorable conditions, but they have been won in many important races on various tracks, under all kinds of conditions and in conflict with the fastest cars and best drivers in the world.

All these records were won by strictly stock Marmons—the kind you buy—except the free-for-all, or "regardless of class" records between 100 and 200 miles—and it is to be noted that these were not as fast as the Marmon stock car records covering the same distance. The Marmon "Wasp," with which these free-for-all records from 100 to 200 miles were made, varied from the stock chassis only in the fact that it had six cylinders instead of four.

In the 231-300 class the Marmon **holds all the records.** The longest race for the class thus far has been 120 miles, and the Marmon records run from 5 to 120 miles without a break.

In the 301-450 class the Marmon holds all the records from 40 to 100 miles. We are appending all the official records from 10 miles up in the big-car class (451-600) and in the free-for-alls, where the Marmon was in competition with much larger and more expensive cars, together with the Marmon records in the 231-300 and 300-450 classes:

## OFFICIAL RACING RECORDS

### Regardless of Class.

| | | | |
|---|---|---|---|
| 10 | Miles Simplex 90 | Robertson | 6:35.62 |
| 15 | Miles Benz 120 | Oldfield | 12:34.04 |
| 20 | Miles Benz 120 | Hearne | 14:08.72 |
| 50 | Miles Fiat 90 | DePalma | 37:55.53 |
| 55 | Miles Marmon 32 | Harroun | 42:03.35 |
| 60 | Miles Marmon 32 | Harroun | 45:51.72 |
| 65 | Miles Marmon 32 | Harroun | 49:38.34 |
| 70 | Miles Marmon 32 | Harroun | 53:25.28 |
| 75 | Miles Marmon 32 | Harroun | 57:15.79 |
| 80 | Miles Marmon 32 | Harroun | 1:01:04.77 |
| 85 | Miles Marmon 32 | Harroun | 1:04:53.12 |
| 90 | Miles Marmon 32 | Harroun | 1:08:41.2 |
| 95 | Miles Marmon 32 | Harroun | 1:12:32.98 |
| 100 | Miles Marmon 32 | Harroun | 1:16:21.9 |
| 110 | Miles Marmon 48 | Harroun | 1:29:25 |
| 120 | Miles Marmon 48 | Harroun | 1:37:18 |
| 130 | Miles Marmon 48 | Harroun | 1:45:30 |
| 140 | Miles Marmon 48 | Harroun | 1:43:57 |
| 150 | Miles Marmon 48 | Harroun | 2:02:16 |
| 160 | Miles Marmon 48 | Harroun | 2:10:54 |
| 170 | Miles Marmon 48 | Harroun | 2:19:31 |
| 180 | Miles Marmon 48 | Harroun | 2:28:18 |
| 190 | Miles Marmon 48 | Harroun | 2:37:09 |
| 200 | Miles Marmon 48 | Harroun | 2:46:32 |

### 451-600 Class Stock Chassis.

| | | | |
|---|---|---|---|
| 10 | Miles Fiat 60 | Robertson | 7:47.71 |
| 20 | Miles Fiat 60 | Robertson | 15:57.41 |
| 30 | Miles Fiat 60 | Robertson | 24:53.63 |
| 40 | Miles Fiat 60 | Robertson | 33:00.00 |
| 50 | Miles Fiat 60 | Robertson | 42:02.98 |
| 60 | Miles Marmon 32 | Dawson | 50:21.35 |
| 70 | Miles Marmon 32 | Dawson | 58:22.49 |
| 80 | Miles Marmon 32 | Dawson | 1:06:21.30 |
| 90 | Miles Marmon 32 | Dawson | 1:14:22.23 |
| 100 | Miles Marmon 32 | Dawson | 1:22:15.24 |
| 110 | Miles Marmon 32 | Dawson | 1:30:08.52 |
| 120 | Miles Marmon 32 | Dawson | 1:38:16.63 |
| 130 | Miles Marmon 32 | Dawson | 1:47:42.20 |
| 140 | Miles Marmon 32 | Dawson | 1:55:40.77 |
| 150 | Miles Marmon 32 | Dawson | 2:03:36.23 |
| 160 | Miles Marmon 32 | Dawson | 2:11:31.77 |
| 170 | Miles Marmon 32 | Dawson | 2:19:25.61 |
| 180 | Miles Marmon 32 | Dawson | 2:27:17.07 |
| 190 | Miles Marmon 32 | Dawson | 2:35:17.9 |
| 200 | Miles Marmon 32 | Dawson | 2:43:20.13 |

### 301-450 Class Stock Chassis.

| | | | |
|---|---|---|---|
| 40 | Miles Marmon 32 | Dawson | 32:30.37 |
| 50 | Miles Marmon 32 | Dawson | 40:28.1 |
| 60 | Miles Marmon 32 | Dawson | 48:15.2 |
| 70 | Miles Marmon 32 | Dawson | 56:05.65 |
| 75 | Miles Marmon 32 | Dawson | 1:04:18.7 |
| 80 | Miles Marmon 32 | Dawson | 1:08:00.00 |
| 90 | Miles Marmon 32 | Dawson | 1:12:58.94 |
| 100 | Miles Marmon 32 | Dawson | 1:20:40.70 |

### 231-300 Class Stock Chassis.

| | | | |
|---|---|---|---|
| 5 | Miles Marmon 32 | Dawson | 4:19.36 |
| 6 | Miles Marmon 32 | Harroun | 5:40.83 |
| 10 | Miles Marmon 32 | Harroun | 8:16.8 |
| 20 | Miles Marmon 32 | Dawson | 16:23.5 |
| 25 | Miles Marmon 32 | Dawson | 20:40.75 |
| 30 | Miles Marmon 32 | Dawson | 24:52.51 |
| 35 | Miles Marmon 32 | Dawson | 29:39.85 |
| 40 | Miles Marmon 32 | Harroun | 34:25.4 |
| 45 | Miles Marmon 32 | Harroun | 38:11.6 |
| 50 | Miles Marmon 32 | Harroun | 42:03. |
| 60 | Miles Marmon 32 | Harroun | 53:53.12 |
| 70 | Miles Marmon 32 | Harroun | 1:03:01.23 |
| 75 | Miles Marmon 32 | Harroun | 1:07:31.07 |
| 80 | Miles Marmon 32 | Harroun | 1:12:08.43 |
| 90 | Miles Marmon 32 | Harroun | 1:21:12.06 |
| 100 | Miles Marmon 32 | Harroun | 1:30:08.31 |
| 110 | Miles Marmon 32 | Harroun | 1:40:14.85 |
| 120 | Miles Marmon 32 | Harroun | 1:49:26.94 |

**NORDYKE & MARMON CO. (Estab. 1851) Indianapolis, Ind.**

Licensed under Selden patent.

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# THE MARMON

**"The Easiest Riding Car in The World"**






Cobe Cup

## The Victorious Marmon

In all kinds of tests the Marmon has proved itself victorious. During the years that the Glidden tours attracted competition worth while, it went into them and came out with perfect scores, and it has finished perfect in a large number of other important endurance runs. In road races, track races and hill-climbs it has been uniformly victorious. Its stamina, its wonderfully consistent performance under all conditions have won for it the most remarkable string of important victories ever won by any motor car in America or Europe.

### Great Racing Victories Within a Year

**Cobe Cup Race**—Indianapolis Speedway, July, 1910, stock chassis up to 600 cu. in. 200 miles in 163 min. 26.1 sec. Broke record over 10 min. 73.47 mi. per hour. Marmon first with two tire stops; Marmon second, one tire stop.

**Wheeler & Schebler Trophy**—Indianapolis Speedway, May, 1910, open up to 600 cu. in. 200 miles in 166½ min. 72 miles per hour. (Trophy No. 1. )One stop for fuel.

**Vanderbilt—Wheatley Hills Trophy**—Autumn of 1909, stock chassis, 231 to 300 cu. in. 189.9 miles in 190 min. without a stop. 59.87 miles per hour. (Trophy No. 2.)

**Atlanta Speedway Trophy**—Atlanta Speedway, May, 1910, 200 miles in 182½ min. without a stop. 65.4 miles per hour. (Trophy No. 3.)

**Atlanta Speedway Trophy**—Atlanta Speedway, Autumn, 1909. 120 miles in 109 min. without a stop. 66.05 miles per hour. (Trophy No. 12.)

**Remy Grand Brassard and Trophy**—Indianapolis, July, 1910. 100 miles in 80 min. 40.7 seconds. 74.28 miles per hour. Marmon first with two tire stops; Marmon second without a stop. (Trophies 4 and 5.)

**Remy Grand Brassard and Trophy**—Indianapolis, May, 1910. 50 miles in 42½ min. 70.58 miles per hour. Marmon first and second.

**Los Angeles Grand Prize**—L. A. Motordrome, April, 1910. Stock chassis up to 600 cu. in. 100 miles in 76⅓ min. without a stop. 78.6 miles per hour. (Trophy No. 8.) Breaking world's record regardless of class. Marmon "32" with 318 cu. in. displacement.

**Two Hours Free-for-All**—Los Angeles Motordrome, April, 1910. 148 miles in 120 min. without a stop. 74⅓ miles per hour. (Trophy No. 9.)

**Fifty Miles Stock Race**—Los Angeles Motordrome, April, 1910. 50 miles in 39 min. 53.55 sec. without a stop. 75.2 miles per hour. Marmon first and second. (Trophy No. 11.)

**Hundred Miles Stock Race**—L. A. Motordrome, April, 1910. 100 miles in 85 min. 22 sec. without a stop. 70½ miles per hour. (Trophy No. 10.)

**Ascot Trophy**—Ascot Horse Track, April, 1910. 100 miles in 103 min. without a stop. 58.25 miles per hour.

**Ascot Fifty Miles**—April, 1910. 50 miles in 50 min. 16⅖ sec. 59.83 miles per hour.

**New Orleans Prize**—Horse Track, Nov., 1908. 100 miles in 107 min. without a stop. 56.23 miles per hour.

**New Orleans Fifty Miles**—Horse Track, Nov., 1909. 50 miles in 54 min. without a stop. 55.55 miles per hour.

## NORDYKE & MARMON CO. (Estab. 1851) Indianapolis, Ind.

Licensed under Selden patent.

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**At Home on a Hill**



"Strong as a Lion"

**Never Fails to Reach Your Destination**

**36 Inch Wheels** — **112 Inch Wheel Base**

The LION "40" is not an assembled car—it is made at our factory at Adrian, Michigan.

We make just two cars: Touring—Roadster.

The output for our 1911 models is to be 2,000 cars—we could make more, but not without jeopardizing the quality—consistent with skilled workmanship—in a factory manufacturing every part of its product.

The LION "40" runs like sixty, and on a hill, it never leaves you half way, but takes you right to the top—this means strength and power.



**Lion "40"**

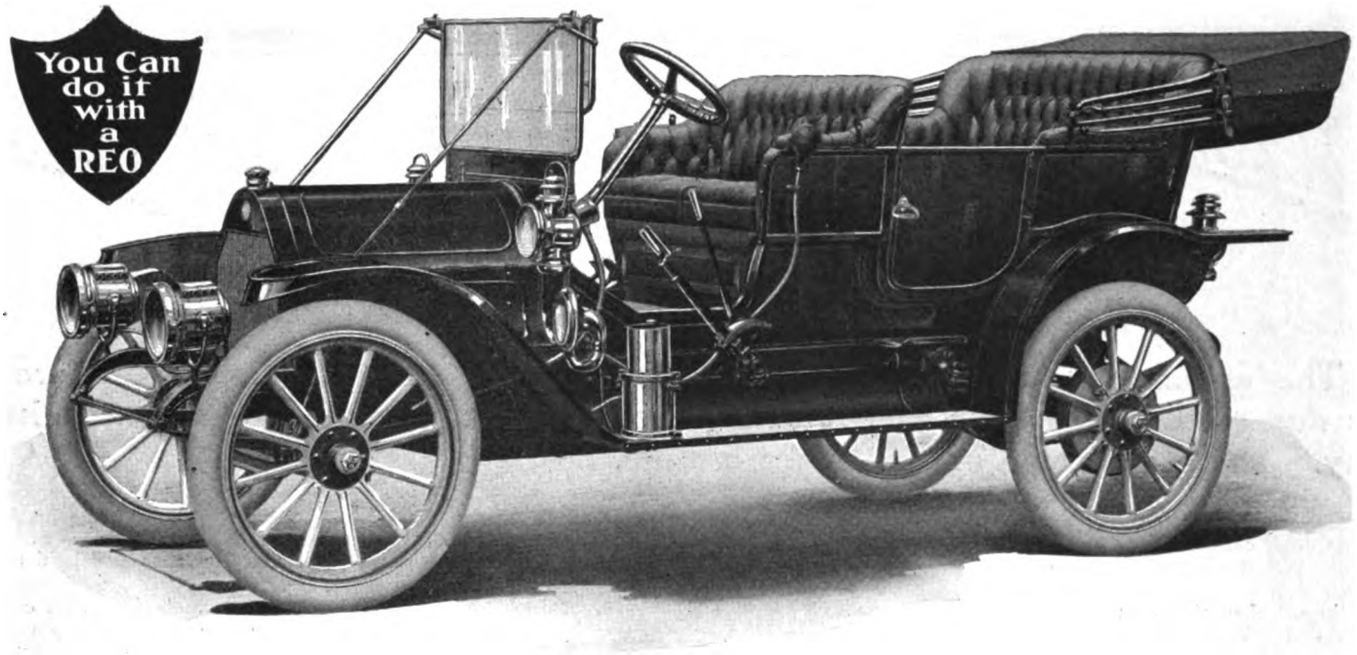
**Gentlemen's Roadster, $1650**

**Some desirable territory open for dealers who make immediate application to us.**

**LION MOTOR SALES COMPANY, 650 Woodward Avenue, DETROIT, MICHIGAN**

**General Agents for Lion Motor Company, United States and Canada**


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# 1911 Reo "Thirty" $1250

Top and Mezger Automatic Windshield extra.

It is not, by any means, a matter of price. One kind of automobiles gives you a certain set of qualities, another gives you another set. The main question is: which set do you want? Price and cost of maintenance comes later.

There are two kinds of car: light and heavy.

The heavy high-powered cars give plenty of power, can use considerable of that power and are comfortable on smooth roads. Some of them are very reliable, some very well built.

Some—the cheap imitations—are not.

The Reo is built along the same general engineering lines as the high-powered cars at four to six thousand dollars, but with an entirely different aim. The Reo has large *net* power, but it also has certain qualities not found in any other car.

These qualities are: comfort at all speeds; full use of power on all roads: safety; buoyancy. These are possible in a light car of high-power; they are not possible in any other type of car.

The Reo motor is of moderate size, but, due largely to its large valves, generates a large amount of power, which is *conserved* throughout the car. This light motor makes light construction possible throughout the mechanism and supports. Weight is saved everywhere.

Then, the car being light, it can have *easy springs*, which not only give more comfort to the passengers, but save the strain on the mechanism that comes from road shocks, and afford a still greater margin of endurance with light mechanism.

Then *safety*. The light-weight Reo is very easily accelerated and retarded.

The *Reo can use all its net power* on average and rather rough roads, without injuring mechanism or making the passengers uncomfortable.

*Buoyancy*. The Reo has a buoyancy not found in any other car. This gives an exhilaration to Reo motoring entirely unknown in ordinary motoring—this is one of the very greatest pleasures of this delightful sport. All this is due to the splendid combination of light weight and high power.

*Strength*. The cost of the Reo is put into quality not weight. Every part is the best possible material. Reo cars are strong and reliable. The long public and private record of the Reo for get-there-and-back-ability proves that.

Now for price and economy. This high-power but light-weight Reo is only $1250, and, on account of its high-grade construction and light-weight, cost less than any other car for tires, gasolene and repairs.

**Four-passenger Roadster, same price. Reo "Twenty-three" Four-cylinder Runabout $850.**

**Send for Catalogue which goes deeper into the matter.**

**R M Owen & Co Lansing Michigan General Sales Agents for Reo Motor Car Co**

**Licensed under Selden Patent**

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The Overland

# What Foresight Did for the Overland

The Overland

**The amazing demand for Overlands has become the sensation of motordom. It is due to this fact: We began two years ago to prepare for conditions existing today. These are some of the things we did.**

We saw long ago that the demand of the future would come mainly from men of moderate means—from careful, economical people.

We knew that the cost of cars must come down. We saw that the greatest demand would soon go to that maker who gave the best car for the money.

So we invested our earnings—every penny of profit—in labor-saving machinery, in modern equipment. That investment to date exceeds $3,000,000.

## Saving $300 Per Car

We began making the parts which other makers buy. And we made them with the latest automatic machinery.

We invested a quarter million dollars in jigs alone—to perform each operation in the most exact, most economical way. We put $150,000 into a crank-shaft plant, and saved a large sum on each car.

We equipped a large plant for making screws and nuts alone. We put in our own steel plant for making steel frames. We installed an aluminum foundry which saves $300 per day.

We covered dozens of acres of floor space with machinery for saving cost. Every existing machine was discarded as soon as our inventors found or devised something better.

There are dozens of machines each of which saves the work of from twelve to twenty men. There are hundreds of parts which we are making for less than they ever were made before.

And we are making them better—making each part like every similar part. We are getting exactness such as hand work never gave—to the thousandth part of an inch.

Thus we have cut the cost of Overlands 20 per cent. within the past year alone. Thus we are saving our buyers an average of $300 per car.

## Utter Simplicity

We saw, too, that most new buyers would run their own cars. There would be no expert to care for them.

So we set our inventors to work on simplicity. Wherever possible they made one part to take the place of many. The Overland today has fewer parts than any other automobile.

They got rid of complexities, including the complex pump. They perfected the simplest, quietest, most reliable engine that ever went into a car.

Thus they made a car which almost cares for itself—which is practically trouble-proof. Many an Overland has run thousands of miles without even cleaning a spark plug.

They created the pedal control found in many Overland models. One goes forward or backward, fast or slow, by simply pushing pedals. A child can master the car in ten minutes.

We established a system of test and inspection—the most elaborate ever known. Thus we made certain that every owner would get a perfect car.

Each of these cars, on the average, has sold four others like it. The demand has spread like wildfire, until this year's sales will exceed $24,000,000.

## Overland Prices

A 25-horsepower Overland sells for $1,000 in roadster style—for $1,100 with tonneau. The wheel base is 102 inches, the possible speed is 50 miles an hour.

A 40-horsepower Overland, with single rumble seat, sells for $1,250. The wheel base is 112 inches. Other Overland models all the way to $1,500.

The Marion-Overland—the finest car that our engineers can create—sells for $1,850 with touring body. All of the prices include gas lamps and magneto. The Marion-Overland includes Prest-O-Lite tank.

## Judge for Yourself

You can easily prove that the Overland gives far more for the money than any other automobile. You can see for yourself that it is the simplest car in existence. You can prove these facts anywhere, for Overland dealers are in 800 towns.

There are Overland owners in every community. We have added 14,000 new ones in the past six months. They will tell you how low is the cost of upkeep—how reliable and trouble-proof are the cars. They are so reliable that the Government uses them to carry the mails.

Send us this coupon and we will send you the facts, and pictures of every style. Then see and compare the cars.

(N 26)

**The Willys-Overland Company**
**Toledo, Ohio**

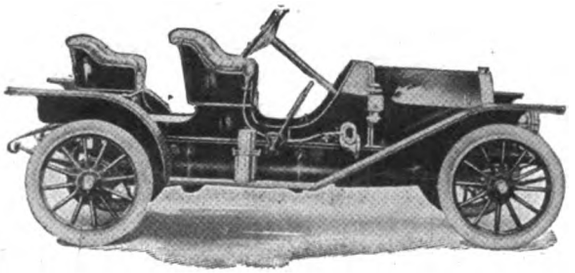
*Send me the facts about*

*Passenger Cars* ☐ *Delivery Cars* ☐

*The Marion-Overlands* ☐

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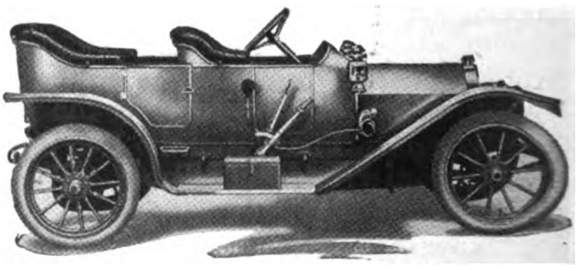
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The 25-horsepower Overland, with 102-inch wheel base, costs $1,000 to $1,100, according to style of body.
The 40-horsepower Overland, with 112-inch wheel base, costs $1,250 to $1,500, according to style of body, etc.

The Overland

All prices include gas lamps and magneto



The Marion-Overland—prince of the line—costs $1,850 with touring car body. Also made as racing roadster, as town car and with torpedo body.
Overland Delivery cars, $1,100. Capacity, 800 pounds and two Passengers.


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THE MOTOR WORLD

Volume XXIV. New York, U. S. A., Thursday, August 18, 1910. No. 7

## ROYAL IS NUCLEUS FOR A MERGER

**Ambitious Plans for New $4,000,000 Company—To Pick up Factory Bargains—Cars Direct to Consumers.**

In its reorganization, as forecasted in last week's Motor World, the Royal Tourist Car Co., of Cleveland, Ohio, is to form the nucleus for what is launched as a "big merger of automobile interests" and which is known as the Consolidated Motor Car Co., of Cleveland, a $4,000,000 corporation, the stock of which is divided equally into common and preferred shares. The fiscal activities of the enterprise at present are being conducted by M. D. Kleinzahler, of M. D. Kleinzahler & Co., Youngstown, Ohio, investment brokers, but the "real parties interested" shortly are to be disclosed.

Although it is capitalized at $4,000,000, the merger company may go much more deeply into the industry than that, according to Kleinzahler, who indicates that in its process of buying up available automobile manufacturing properties, the prospects are that it will invest at least $18,000,000 within a very short time. The merger concern has its eye on a commercial vehicle plant and also is considering the feasibility of acquiring the bankrupt Mora Co.'s plant, at Newark, N. Y., in addition to the Royal property and others that are not far from Cleveland.

The company proposes the introduction of "a new, sound and conservative business method of amalgamating the manufacturing and selling ends of a choice group of automobile properties." Kleinzahler declares that a radical selling policy will be instituted.

"We shall sell cars directly to the consumer," he declares. "There will be no middleman. Detailed plans will be announced later. We expect to save the agent's commission to every purchaser. In addition to the Royal we shall make two cheaper ones, at $2,500 and at $1,500, respectively."

**Goodyear Increases Capital to $6,000,000.**

The Goodyear Tire & Rubber Co., of Akron, Ohio, has decided to increase its capitalization from $2,000,000 to $6,000,000 and has declared a cash dividend of 12 per cent. and a stock dividend of 100 per cent. A special meeting of the stockholders in Akron on the 8th inst. confirmed the recommendation of the directors for the increased capitalization. The increase will be entirely in the common stock. The directors offer the stockholders the right to subscribe for $500,000 preferred and $250,000 common, but stock not taken by present stockholders after a limited time is to be offered to the public.

**Price on Tire Chain Grips Coming Down.**

Although success in patent litigation usually presages a stiffening of prices on the goods involved, it is to have a contrary effect in the case of the Weed tire chain grips, the price on which, it is definitely known, will be reduced early next month. The exact extent of the reduction is not public property, but that it will be a "decided" one is admitted by the Weed people.

**Broadwell to Leave Fisk for Hudson.**

E. H. Broadwell, vice-president of the Fisk Rubber Co. and so long identified with that company as to seem a permanent fixture, unexpectedly has tendered his resignation, which becomes effective September 1st. On that date he will become vice-president of the Hudson Motor Car Co., Detroit, in which city Broadwell for years was the Fisk representative, but he has traveled so extensively that he is one of the best known men in the trade.

**Krit Prepares to Enlarge Plant.**

The Krit Motor Car Co., Detroit, has increased its capitalization from $110,000 to $250,000. Among other things, the new money will be used to add two stories to the company's factory of Leib street.

## RESTRAINS GARAGE NIGHT NOISES

**Injunction Against New York Establishment—Court's Opinion Important in Showing Legal Status of Garages.**

Prospective builders of garages in residential districts gained a valuable victory last April when the Appellate Division of the New York Supreme Court decided that property owners cannot obtain injunctions against the building of garages by endeavoring to show that a garage is a nuisance, but property owners had an inning on the 12th inst., when an injunction was granted by the New York Supreme Court against a garage in a residential part of New York City, forbidding it from creating noises of any kind that might prove objectionable to the neighbors, between 10 p. m. and 6 a. m.

The injunction was issued by Justice Goff against the Uptown Garage Company, West 124th street, near Seventh avenue, at the instance of Diederich W. Rhode and other property owners of nearby apartment houses, who complained that their tenants could not sleep because of the noises and odors emanating from the garage at night. In granting the injunction Justice Goff commented upon the necessary noises of a large city, and took up the point as to when a garage is guilty of "nuisance."

"It is doubtless true," says Justice Goff in his opinion, "that one who lives in the city cannot expect the quiet of the country and must pay the price of being close to these activities which make city life attractive, by suffering some degree of annoyance. It is also true that disturbing noises, to warrant injunctive relief, must be substantially disturbing with reference to all the circumstances in the case. This neighborhood is residential. Noises which prevent sleep, and offensive odors which produce nausea, are nuisances.

"While the defendant is engaged in a legitimate and useful business, yet it must operate with due regard to the comfort of

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its neighbors, and if it can conduct its business without noise and offensive odors, it is bound to adopt whatever means are requisite to that end, taking the discomfort and expense to itself rather than impose upon its neighbors."

The garage company is directed by the court to refrain from permitting engines, either on a repair stand or in cars, to be run without mufflers between the hours specified, and no hammering or pounding is to be permitted in the period unless made necessary by some unusual emergency.

In some respects the decision is highly important in dove-tailing with last April's decision by Judge Merrell, of the Appellate Division, in a suit brought by property owners in Utica, N. Y., to prevent the Central Auto Sales Company, of that city, from building and operating a garage in what was designated as a fashionable residential section. The two decisions together serve to help establish the legal status of a garage in conflicts with property owners who claim that a garage per se is a nuisance. Richard W. Sherman, a relative of Vice-President Sherman, was the complainant in the Utica case, and he sought the injunction on the ground that the garage, if it were erected and operated, would prove a nuisance to the neighborhood because of its noise and bad odors.

Judge Merrell held that Sherman's action for an injunction was brought prematurely, not against an existing evil, but against one which was feared. The court expressed the view that "a public garage may be so conducted that its objectionable features may be eliminated or at least minimized to an extent that its operation will not unduly annoy or inconvenience those who reside nearby," and the court went so far as to make the assertion that "Public garages have become a necessity." He made it plain, however, that they do not enjoy any legal right to conduct a nuisance in the operation of their business, and must be regulated by proper rules.

The Utica decision and that given by Justice Goff in New York City indicate that a garage itself cannot be considered a nuisance merely because it is a garage, but that like any other establishment it may be restrained by the courts in case its operation becomes so offensive to the neighbors as to constitute a nuisance in the legal sense.

### DeTamble Likely to Change Hands.

Negotiations are in progress for the sale of the DeTamble Motors Co., of Anderson, Ind., to Eastern interests, who will continue the operation of the plant. Edward S. DeTamble, the president, and Fred DeTamble, sales manager, are indicated as preparing to sell their holdings previous to going to California. The plant was established in Anderson two years ago on promise of a bonus of $50,000, of which all but $18,000 has been paid.

## BRISCOE TELLS NEED OF CAUTION

### Explains to United States Motor Stockholders why Company is "Going Slow" —Not Boosting Quotations.

Holders of preferred shares in the United States Motor Co. late last week received their checks for the first quarterly dividend of 1¾ per cent. The checks were accompanied by a financial statement of much interest and a frank letter from President Benjamin Briscoe that is timely and of value far beyond the confines of the big merger.

According to the general balance sheet of the company for the first quarter, ending June 1, 1910, the inventory and quick assets amount to $10,560,906.52. There has been issued $8,885,950.00 worth of preferred and $10,723,675.00 worth of common stock. The current liabilities are given as $4,529,237.57, and the reserve for depreciation of plants is $687,073.39. The total surplus is $1,589,303.23. The net income from operations was $1,800,293.73, sufficient to pay the quarterly dividend on the preferred stock and leave a surplus equal to about 15 per cent. of the common stock.

"It has been the desire of your directors to place the common stock on a dividend basis at this time," said President Briscoe in his letter to the stockholders, "but owing to unexpected developments in the general financial situation of the country it appears to be a prudent and conservative course to await a more propitious time, at least until the nervousness now so pronounced among bankers shall have subsided.

"It has been the custom for years for uninformed people to predict a disastrous ending to the automobile business in general. The splendid way in which the industry weathered the panic of 1907 was the envy and wonder of all business men and should have set at rest forever these thoughtless carpings.

"There may be weak spots in the industry. It would be different from all others if there were not. Nevertheless, the business of making and selling motor cars is and will continue to be as staple as the railroad, the street car, the telephone or any business that has a product that represents an economic usefulness.

"The course adopted for the immediate future is one of caution. While general financial conditions seem to have reached their worst and to be now on the upward trend, nevertheless, impregnable safety is the most important of all considerations. Stories of fabulous profits in this business, some of them to some extent true, have stimulated many ill-advised promotions which are likely to have the same result that is usual with any business when attempted on insufficient capital or conducted by men unfamiliar with that business.

"Such phenomena are not uncommon in any industry, but until the wheat shall have been separated from the chaff in the automobile business, we must expect to bear a little of the reflected odium of some other people's actions.

"Sales and collections are normal for this season of the year. The quantity of goods manufactured and in process in our plants is not greater than is right and normal for this season. Some of the plant extensions and permanent investments that had been planned have been held up temporarily pending more settled financial conditions, but it is expected that conditions will warrant their continuance in time to take advantage of the very large business offered for the coming year.

"It may be said that the officers of the company pay little attention to the price of the company's stock, for whether it is high or low in no way affects the earnings from its operations."

### Ford's $350,000 Bond Forthcoming.

"It will be no more to us than paying our water bill," is the nonchalant way in which James Couzens, of the Ford Motor Co., Detroit, Mich., treats the matter of the Ford company's putting up $350,000 bond pending an appeal of the Selden decision. The bond is required by Judge Hough's direction, if the company takes an appeal from the decision rendered against it in the United States Circuit Court for the Southern District of New York last September, but the decree for which was filed only last week, as told in the Motor World. With the Ford decree, Judge Hough also filed decrees against Panhard & Levassor, John Wanamaker and the other defendants enjoining them from infringing the Selden patent, but providing for a suspension of the injunctions in the Ford and Panhard cases provided these defendants take an appeal and file bonds of $350,000 and $16,000 respectively. The injunctions against all the defendants have been issued and served in due course, in accordance with the decrees. The Ford company indicates that it has prepared its appeal for filing, that it will put up the $350,000 in cash, and that it expects a decision on the appeal before next Christmas, inasmuch as the case has been given the reservation of a preferred position on the docket for an early hearing. The latter will be comparatively brief, relating to the law only.

### Republic Rubber Building Big Addition.

The Republic Rubber Co. has let contracts for the erection of a five-story fireproof addition, 80x200 feet, to its plant at Youngstown, Ohio. The new building will be devoted wholly to the production of the Republic staggered tread tires and will have no reference to another addition, 90x250 feet, which is being built but which is intended for other purposes.

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## BACK FROM SOUTH AMERICAN TRIP

### Rogers Tells of His Adventures in Placing Mitchell Agencies—Languished Three Days in an Argentine Jail.

G. Vernor Rogers, secretary of the Mitchell-Lewis Motor Co., Racine, Wis., who recently returned from an "invasion" of South America, returned with more than a sheaf of orders for Mitchell cars. Among others, he brought back memories of three days spent in a Buenos Aires jail before the ponderous machinery of the court was put into motion. He had been arrested for the terrible crime of brushing a pedestrian with the fender of an automobile he was driving.

"A great hubbub was caused by this excitable individual, who was not injured in any way," says Mr. Rogers. "It was an obvious attempt to hamper a stranger and I naturally rebelled. The effort to measure me under the Bertillon system was frustrated by my arguments. Obeying the custom, I produced $100 to hear the alleged injured man say he had lied to the police and added $50 for court fees and was freed."

When able to do business Rogers placed the agency for the entire Argentine Republic with Odell Hijos & Cia., Florida 964, Buenos Aires, to whom were allotted sixty cars. At Montevideo the agency for all of Uruguay was given to Luis Daglio & Cia.

Not a little of the spectacular feature of Rogers's travels in South America was furnished by the journey from Buenos Aires over the great Cordilleran range of the snow-clad Andes of Chile. With the Mitchell-Lewis official were Mrs. Rogers and Dr. Frederico Sarda, D.D.L. Mules were obtained for mounts and the sure-footed beasts carried the whole party in safety both on the westward journey and the return trip to the Atlantic seaboard. At Santiago, Chile, the Racine man found a wholesale growth of sentiment in favor of American-made cars, and assigned the agency for that country to Senora Boza y Rivano San Antonio, 816.

"From Uruguay to Brazil," continued Mr. Rogers, "the trip was one of constant surprise at the extreme rapidity with which the economic development of the country is being emphasized. Rio is a wonderful city—in my estimation it is the most beautiful city in the world."

A simple lesson in arithmetic bearing upon the foreign shipments of automobiles was developed as the result of Mr. Rogers's trip. He learned that a car might be shipped from Racine to Buenos Aires for $95, whereas the same machine consigned to San Francisco would cost $150 in freight.

### Demotcar Admits Its Insolvency.

The Demotcar Co., Detroit, has been petitioned into bankruptcy by three local creditors, who allege among other things that it has given preference to other creditors. The Demotcar Co. owes more than $100,000 and admitted its insolvency and willingness to be adjudged a bankrupt. As its financial embarrassment previously was a matter of general knowledge, its outright failure caused small surprise.

### May Mulct Windshield Makers.

Planning to collect a royalty of $1 on every windshield of the "zigzag" or inclined section type that has been made in this country or that will be made for some years to come, a patent holding concern known as the Stahlbrodt Co. has been incorporated in Rochester, N. Y. The company has acquired what is claimed is a "basic" patent on windshields of this type, the patent being that granted to an English army officer, Major Henri S. Samuels, February 18, 1908. The company's only object at present is to establish its patent claims and collect royalties, although it later may engage in windshield manufacture. The stockholders are Lawrence Stahlbrodt, Allen M. Brewer and Homer Reichenbach.

### Mais Forms $500,000 Truck Company.

After developing a motor truck in Peru, Ind., where they took manufacturing space in the Brownell-Booth Co.'s plant last winter, A. F. Mais and E. W. Spencer have returned to Indianapolis, Ind., and have incorporated a $500,000 company, to be known as the Mais Motor Truck Co. The truck was designed by Mais, while Spencer is business manager of the enterprise. A. W. Markham and Charles Fisher are named with Spencer as directors.

### New Detroit Company to Produce "Sixes."

With Malcolm T. Faulkner as the moving spirit and business manager, the Faulkner-Blanchard Motor Car Co. has been organized in Detroit, and shortly will be incorporated. It plans the immediate production of one hundred 34 horsepower, six-cylinder cars, which will be styled the "Faulkner-Blanchard Gunboat Six." Its first model is already on the road.

### Anhut to Reorganize and Change Name.

The Anhut Motor Car Co., Detroit, which had suffered a financial stringency, has secured necessary extensions and will be reorganized and its name changed to the Barnes Motor Car Co. Its new capitalization will be $375,000, of which $75,000 will be preferred stock.

### Hudson Organizes a New Department.

The Hudson Motor Car Co., of Detroit, has instituted what it styles a "merchandizing department." It is made up of a number of expert salesmen, whose object is to show Hudson dealers "how to get in touch with consumers, how to interest them and how to make sales".

## SHARES SHOULD BE $2,548 EACH

### General Motors Lithographs Glowingly Exploited in Hard Stock Selling Campaign—Some Daring Comparisons.

In a campaign to create a sufficiently large market for the disposal of the immense volume of lithographed paper that the General Motors Co. has prepared for outsiders to take in exchange for real money, the General Motors Securities Co., which was created last April, is exhibiting an activity and enterprise little short of remarkable, and incidentally is exposing the financial heads of Standard Oil, Union Pacific, Amalgamated Copper, United States Steel and the like, as a bunch of pikers and incompetents in comparison with the "wizard" of the automobile merger corporation. The Securities company supplies the figures to prove it, and also to show that, if viewed in the proper light, General Motors common shares should sell at $2,548 per share instead of a mere $108 per share, at which they were quoted in a Detroit newspaper last April.

These interesting disclosures are provided in circular letters and printed matter with which the Securities company is bombarding brokers, bankers and investors, with a view to stimulating their recognition of "General Motors" as a stock that figuratively belongs to the same club and smokes the same brand of cigars as Standard Oil and the other big fellows. Although apparently wishing to break into this social set, General Motors nevertheless is set up in invidious comparison with the others.

On a nice yellow sheet, the Securities company gives an elaborate statistical table "showing earning power of General Motors securities as compared with 14 leading industrials for the fiscal year ending 1909." And the table makes those 14 industrials look sick, all the way through the list, from American Car & Foundry and American Sugar Refining down to Steel and International Harvester. The best of them, Standard Oil, only shows 13.2 per cent. "earning power," while General Motors, according to the figure inserted in the table, has 34.7 per cent. "earning power." On a blue sheet 14 railroad stocks are dragged to shame in a similar way, and the triumph of General Motors is even more complete, as out of the list the best showing is only 10.1 per cent., by Lackawanna, while again for General Motors the 34.7 per cent. "earning power" mark is given.

Crystallizing the purport of the tables, each bears on its outside front cover a table of selected stocks showing "terrific shrinkage" from June 20 to July 25, while "during the same period General Motors

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advanced 5 points," with "advanced" in italics.

Another sheet, headed by the words, "Pin this up in your directors' room," takes a slam at Union Pacific again, as follows:

"An investment of $10,000 in Union Pacific one year ago this spring would now be worth only $8,000, while $10,000 invested in General Motors common at that time would now be worth $62,500."

On such meat as this are the brokers, the bankers and the investors fed until they shall come to regard General Motors as one of those familiar "industrials" of which it is only necessary to mention the name without having to go to a lot of bothersome explanations of what it is, even if, unlike the stocks with which the tables compare it, it is not listed in the New York Stock Exchange or does not figure importantly in the "Curb" trading, but is among the "locals" in a Detroit paper.

The campaign of the Securities company is wide and vigorous, making the one fact stand out boldly that General Motors shares are for sale and are intended to have their resting places in the lockers and vaults of bankers, brokers and the public. The tables give the total outstanding preferred and common stock as $25,539,730, leaving $34,460,270 worth of General Motors stock, out of the total $60,000,000, available for delivery to those persons who can be persuaded to give up their cash for it. It is no trifling job to sell almost $36,000,000 worth of lithographs at any time, but if an energetic campaign can accomplish it or can turn even a fair proportion of such paper into spendable coin, the effort is vain.

Supplementing the work of the Securities company, W. C. Durant, the merger "wizard," has given extensive publicity to a "preliminary report" spontaneously tendered to R. G. Dun and to Bradstreet's, showing the flourishing condition of the Buick Motor Co., which is the chief of the General Motors constituents. Durant declares that the company "would ordinarily prefer to submit a complete and carefully audited statement showing its financial condition as of September 30, the close of the fiscal year," but finds reasons to lay bare the preliminary report instead. The total assets of the concern are given as $17,445,964.50, with liabilities aggregating $7.016,012.28, leaving a net total in the business of $10,429,952.22, on July 1. The unsold finished cars at the company's branches numbered 2,316, which the report asserts is "less than 30 days' requirements of the branches."

An incidental revelation of trade interest is made in the item of the report that shows an investment of $50,000 by the Buick Motor Co. in the Brown-Lipe-Chapin Co., of Syracuse, N. Y., although at the time of the latter's organization with $1,500,000 capital last January a strong denial was made that any General Motors interests were represented in it in any way.

## THE WEEK'S INCORPORATIONS.

Hazleton, Pa.—Bailey Motor Co., under Pennsylvania laws, with $5,000 capital.

Dover, Del.—Dover Garage Co., under Delaware laws, with $5,000 capital; to do general garage business.

Atlanta, Ga.—Primo Motor Car Co., under Georgia laws, with $150,000 capital; to manufacture automobiles.

Dayton, Ohio—The Hosler Overland Sales Co., under Ohio laws, with $40,000 capital. Corporators—E. G. Hosler and others.

Louisville, Ky.—Broadway Auto Co., under Kentucky laws, with $10,000 capital. Corporators—Edward Hagg, O. S. Motteler and W. E. Huffaker.

Minneapolis, Minn.—Alco Motor Sales Co., under Minnesota laws, with $50,000 capital. Corporators—M. R. Nymna, R. J. Powell and H. W. Volk.

Ann Arbor, Mich.—Huron River Mfg. Co., under Michigan laws, with $100,000 capital. Corporators—D. C. Chipman; C. E. Hiscock, G. Seybold and others.

Milwaukee, Wis.—Highland Motor Garage Co., under Wisconsin laws, with $1,000 capital. Corporators—C. W. Arndt, S. W. Glover and A. F. Eckstine.

Chicago, Ill.—Elmore Motor Co., under Illinois laws, with $1,500 capital; to deal in automobiles. Corporators—Geo. W. Goss, Ida S. Goss, Edmund H. Griffin.

New Bremen, Ohio—Case Motor Car Co., under Ohio laws, with $50,000 capital. Corporators—J. H. Grothaus, J. F. Lanfersich, Edmund Grothaus, O. J. Boesel

Indianapolis, Ind.—The Mais Motor Truck Co., under Indiana laws, with $500,000 capital. Corporators—A. W. Markham, E. W. Spencer and Charles Fisher.

Atlanta, Ga.—Motor Sales Co., under Georgia laws, with $10,000 capital; to deal in automobiles. Corporators—A. E. Johnson, Frank L. Eskridge, Lewis E. Aymard.

Cleveland, Ohio—The Consolidated Motor Car Co., under Ohio laws, with $4,000,000 capital. Corporators—G. A. Howell, L. R. Canfield, Thos. D. Canfield and J. L. Bradley.

Topeka, Kan.—Ford Motor Sales Co., under Kansas laws, with $10,000 capital. Corporators—E. T. Guymon, Francis Guymon, A. H. Lewis, J. C. Petro and C. M. Williams.

St. Louis, Mo.—Van Cleve Motor Co., under Missouri laws, with $6,000 capital. Corporators—G. B. Van Cleve, T. S. McPheeters, Jr., C. M. Polk and Harry F. Van Cleeve.

Sandusky, Ohio—Star Garage & Taxicab Co., under Ohio laws, with $20,000 capital; to operate automobiles for hire. Corporators—T. J. Herman, J. E. Herman, C. C. Herman, W. L. Finnegan.

Newark, N. J.—New Jersey Overland Co., under New Jersey laws, with $100,000 capital; to manufacture automobiles. Corporatore—W. F. Acker, H. Heinsheimer, R. D. Crocker, H. H. Poole, all of Newark.

Ft. Wayne, Ind.—Ft. Wayne Automobile Mfg. Co., under Indiana laws, with $20 000 capital; to manufacture automobiles. Corporators—L. J. Wilrath, G. T. Fox, W. H. Rohan, G. P. Dudenhofer, and others.

Rochester, N. Y.—Hazard Motor Mfg. Co., under New York laws, with capital; to manufacture automobile engines, etc. Corporators—E. C. Hazard, G. E. Hazard, G. R. Coates, J. F. Allen, W. B. Crittenden.

Cortland, N. Y.—Southwick Motor Car Co., under New York laws, with $10,000 capital; to deal in automobiles and supplies. Corporators—L. B. Southwick, D. G. Southwick, Harold Nichols, all of Cortland, N. Y.

New Albany, Ind.—Borgerding Motor Car Co., under Indiana laws, with $25,000 capital; to conduct general garage business and deal in automobiles. Corporators—Hermann H., Harry E. and Leonard B. Borgerding.

Jersey City, N. J.—Madison Auto Co., under New Jersey laws, with $25,000 capital; to manufacture and deal in automobiles. Corporators—Walter W. Stewart, William S. Rowland, Charles W. Grant, all of Jersey City.

Knoxville, Tenn.—Blevins-Garrity Motor Co., under Tennessee laws, with $50,000 capital; to manufacture and deal in automobiles. Corporators—R. C. Blevins, J. A. Dickey, S. S. McCormick, C. G. Avin, Geo. W. Robertson.

Wichita, Kan.—Taxicab & Auto Baggage Co., under Kansas laws, with $20,000 capital; to engage in the express business and to operate taxicabs. Corporators—Geo. H. Bradford, D. M. Dale, R. B. Campbell, G. R. Hiscock.

Philadelphia, Pa.—The Great American Automobile Co., under Pennsylvania laws, with $1,500,000 capital; to manufacture automobiles and trucks. Corporators—Samuel Quinn, Charles N. Lee, L. H. Van Briggle, H. W. Davis.

Utica, N. Y.—Electric Horn & Specialty Co., under New York laws, with $5,000 capital; to manufacture a patent electric automobile horn. Corporators—George Fulman, M. J. Carroll, Wm. F. Carroll, Alfred Manny, D. A. Sopham.

Peru, Ind.—Carson Garage & Auto Co., under Indiana laws, with $15,000 capital; to deal in automobiles and accessories, and to operate a garage. Corporators—E. Carson, E. L. Conner, Margaret E. Carson, Margaret E. Conner.

Ft. Wayne, Ind.—Fort Wayne Automobile Mfg. Co., under Indiana laws, with $25,000 capital; to manufacture and operate automobiles. Corporators—G. P. Dudenhofer, H. E. Buecker, G. T. Fox, W. H. Rohan, C. J. Romary, A. C. Harger.

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### IN THE RETAIL WORLD.

John V. Schenck has opened a garage at 179 Cannon street, Bridgeport, Conn.

Coffey & Irwin is the style of a new firm which has entered the automobile business in Oriet, Iowa.

Fahay & Rule are erecting a garage in Petersburg, Ill. The building will be of brick, 44 x 110 feet.

A garage to cost $16,000 is in the course of erection on Lake street, Paterson, N. J. Joseph Martin is at the head of the enterprise.

The Kelly Automobile Co. has opened a garage at 215 Chapel place, Youngstown, Ohio. Stearns and Henry "35" cars will be handled.

The Columbia Taxicab Co. is building a big garage on Delmar avenue, St. Louis, Mo. The structure will be 120 x 200 feet, of brick and steel.

Roy M. Kingsland and Th. Bass have formed a partnership and will open a garage in Canton, Ill. The structure will be erected on North Main street.

Westbrook, Me., soon will have its first garage. Alexander Spiers, in connection with several other Westbrook men, has formed the Westbrook Garage & Machine Co. for the purpose.

Charles Sanders has purchased a half interest in the Buick Motor Co.'s branch at Columbus, O. Sanders formerly was a salesman for Bottorff & Spurgeon, who owned the garage.

Emerson & Orme is the title of a new firm which has been formed in Washington, D. C. The salesrooms are on H street, between 14th and 15th streets, and will form a repository for Apperson and Regal cars.

The Northwestern Stearns Co., Minneapolis, Minn., has been purchased by the F. B. Stearns Co., of Cleveland, Ohio, and henceforth will be conducted as a branch. Joe Littlewood has been placed in charge.

The Dover Garage Co., which recently was chartered with a capital stock of $5,000, has moved into its new garage at Loockerman and King streets, Dover, Del. The building is of brick with plate glass front.

Under the style the Marathon Auto Co., the Southern Motor Works have opened a retail store at 1211 Broadway, Nashville, Tenn., where Marathon cars will be shown. E. Fisher Cole has been placed in charge of the branch.

Capitalized at $10,000, the Lenawee Auto Sales & Garage Co. has entered the automobile business in Adrian, Mich. W. C. Schoolcraft is the moving spirit and will manage the company. Overland cars are to be featured.

Charles E. Baker and Chas. H. Gowin, formerly of Cheboygan, Mich., have "opened up" in Detroit under the style the Warren-Detroit Garage & Sales Co. The salesrooms of the new concern are at 736-40 Woodward avenue.

Sixty-three automobiles were destroyed by fire on Friday last, when the garage of the Maxwell-Briscoe Co., on Lark street, Albany, N. Y., was burned to the ground. The loss is estimated at $100,000 and is partly covered by insurance.

At a cost of about $30,000 another large garage and salesroom soon will be added to the "automobile row" of Chicago, Ill. It will be located at 2600 Michigan avenue and will be occupied by the Interstate Co., with Harvey T. Weeks as manager.

Under the style the Highland Motor Garage, a new company has been incorporated in Milwaukee, Wis., with A. F. Eckstein as general manager. The concern will open a garage, livery and salesroom for second-hand cars on 27th street.

The Swingley Automobile Co., of St. Louis, Mo., has been absorbed by M. M. Blake & Co., an Illinois corporation, that will locate at 2007 Locust street. Ben Swingley remains in charge as manager, and will continue to exploit Stoddard-Dayton cars.

Ground has been broken for a garage and complete machine shop at the corner of A and Fourth streets, Chillicothe, Ohio, which will be occupied by Milton Stiles, of Ventura, Ohio. The building will be 50 x 140 feet and be made exclusively of corrugated iron.

Work has been started on a new garage for George W. Chandler, at 298 Fifth street, Milwaukee, Wis. The building will be 50 x 150 feet, and will accommodate 20 automobiles and 60 horses, as Chandler will conduct a livery stable in connection with the garage.

Deeds & Hirsig, who recently bought the plant of the Volunteer Carriage Co., Nashville, Tenn., have taken over the automobile agencies formerly held by the Howard-Cregor Co. The offices and salesrooms of the Deeds & Hirsig Carriage Co. are located at 150 Second avenue.

The Maxwell-Briscoe building, a five-story structure at the corner of Massachusetts avenue and Newbury street, Boston, Mass., was completely destroyed last week by a gasolene explosion and a fire which followed. The total loss is placed at between $150,000 and $200,000.

The Columbia Automobile Co., which just has been formed in the Missouri town of that name, has opened salesrooms at 108 South Ninth street, where it will display second-hand cars, accessories and supplies, as well as do a renting business. F. W. Niedermayer is president and Ray Dunlap manager.

Fire originating from an unknown cause last week destroyed several buildings in Pittsburg, Pa., among which were two private automobile and one public garage, the latter, owned by T. L. Hammett. It contained five machines, valued at $13,500, all of which were burned, while six cars perished in the private garage, their loss also mounting into the thousands.

Organized with the avowed purpose of developing the motor truck business in New Jersey, the Commercial Maintenance and Motor Co. has been formed in Newark, N. J. Grabowski trucks will be handled, although the garage will be open to all kinds of commercial wagons for storage, repairs, supplies and maintenance. The garage and salesrooms are at 16-18 Shipman street. W. T. Osborne is the general manager.

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### Changes Among Prominent Tradesmen.

J. E. Winney has been appointed sales and advertising manager of the Krit Motor Car Co., Detroit. Formerly he was general contract agent for the Bell Telephone Co. in that city.

Curtis Davis has been appointed advertising manager of the Lion Motor Sales Co., Detroit, which will market the output of Lion cars. Previously Davis was with the Washington Times and also had served on the New York Times and the New York Journal.

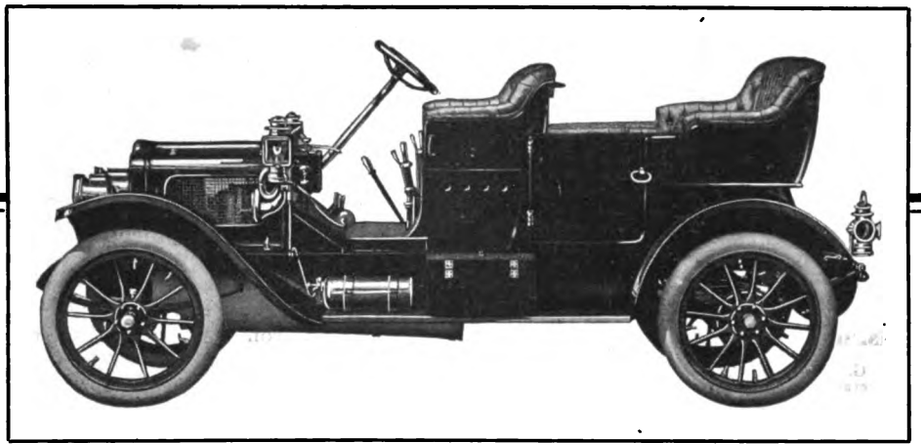
Clermont Rider, of the Rider-Lewis Motor Car Co., Anderson, Ind., has disposed of his stock in the concern to take a stock interest in the Bartholomew Company, of Peoria, Ill., which makes the Glide car. He is succeeded as secretary of the Rider-Lewis company by Percy Doyle, and will represent the Bartholomew company in Kansas.

J. C. Zimmerman, former manager of the Chicago branch of the Fisk Rubber Co., but more recently with Michelin until joining the forces of the Federal Rubber Co., of Milwaukee, Wis., has been made manager of the Federal company's branch in Chicago, with headquarters at 1330 Michigan avenue. His new position is in the nature of a promotion.

A. E. Woodworth has been appointed factory manager of the Cole Motor Car Co., Indianapolis. With one exception, he was the oldest employe, in point of service, of the Buick Motor Co., Flint, Mich., of which he was one of the superintendents. Before leaving Flint he was tendered a banquet by his comrades, who presented him with a gold mounted elk's tooth as evidence of their regard.

Reginald Wade, better known as "Jack" Wade, has been made general sales manager of the Grout Automobile Co., Orange, Mass., taking the position made vacant by the death of Vice-President Walter J. Gould in an automobile accident at Manchester, N. H., several weeks ago. Wade is a newspaperman and has been in the automobile department of the Boston Journal since the commencement of that department.

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THE MOTOR WORLD

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## Trading on the Profits of Others.

"Cutting melons" and declaring fat dividends probably constitute the most cheering and most satisfactory feature of commercial life; the larger the "melons" and the more frequent the dividends the greater is the satisfaction. Of course, not a few "melons" have been cut and not a few snug dividends have been declared by some of those engaged in the automobile industry, and the news of them has made cheerful reading and caused many eyes to open wide and many palms to itch. News of such unbounded prosperity has helped root more deeply the popular notion that the automobile industry is a new Eldorado and that anything in the form of a motor car is "as good as gold." Some of those who need money, or more of it, have not been slow to turn or to try to turn such news to their advantage.

It long has been the stock in trade of company promoters, but more recently it is being employed by going companies or companies that fancy they are going and that require or desire more money to accelerate their movement in one direction or another. The mails are so filled with their literature that it almost appears as if the sale of their shares and not the manufacture of automobiles or their appurtenances is their chief business. The literature points glowingly to huge "melons" cut or large dividends declared by some of those identified with the automobile industry, and pictures the prodigious profits that have been made from modest investments—profits which the seller of shares prophesies, if he does not promise, will be duplicated by those who exchange money for his paper. Comparisons are made with long established securities, for which there is at all times a ready market, to their great disadvantage; it is made appear that only foolish people will purchase such securities when the automobile paper is obtainable for so much less money and pays so very much more profit. The fact that many of the "melons" cut and the dividends declared merely were stock dividends—dividends paid in lithographed paper for which no real market exists—never is mentioned.

It is a very regrettable and discomfiting state of affairs, which ultimately cannot fail to react on the industry as a whole. Perhaps it is not possible entirely to prevent it, but it were well if less is said and printed of the "melons" and dividends of the automobile industry. There are many companies whose profits are a sealed book; there are others whose financial returns are almost regularly made public property and, as now is made plain, their figures and prosperity are being traded on by others for the purpose of promoting the sale of paper. Anything that may be done to check or discourage that sort of thing will be for the good of the industry.

## Cars Judged by Their Equipment.

Growing discernment on the part of the average automobile buyer is affording the manufacturer no little occasion for reflection, particularly in respect to its bearing on the equipment problem. The increasingly important position of the speedometer furnishes an important element in this consideration. The growing use of speedometers is a matter of common observation, while it is a particularly significant fact that whereas until recently the speed indicator was regarded as a luxury to be added at the option of the motorist, at the present time not less than twenty American builders are including such instruments in the specifications of the cars which they will market during 1911.

This tendency to include speed indicators in the stock equipment, which is observed to apply to cars ranging in price from $1,500 upward, is expressive of a twofold development in the market. Not only is it an acknowledgment on the maker's part of the demand for completeness in the outfitting of the car, but it also confirms the popular opinion that the speedometer is an essential feature in motoring.

That the mere advantages of knowing at all times at exactly what speed the car is traveling, and distances covered, should be responsible for so general an appreciation of speedometer value need not for a moment be supposed. The motorist soon becomes accustomed to depending on his speed indicator in an almost unconscious manner. Through the speed indications he obtains a comparative measure of engine performance, both as to speed and power; in covering known distances, combined observation of watch and speedometer enable him to gauge his speed properly to meet engagements or to time his arrival at a given destination. Through observation of odometer readings, he obtains a check on his supplies and other maintenance costs, fuel, oil and tires; and in touring it enables him to follow his map with satisfactory accuracy.

The movement for more complete car equipment, which is of particular interest to the manufacturer at this time, has its own peculiar meaning in relation to the sales business. The surreptitious free equipping of cars by dealers who were restrained from openly cutting prices long has been a thorn in the flesh of the maker. By taking the equipment question into his own hands, the latter not only disposes of an insidious evil but also provides the buyer with a more uniformly satisfactory equipment than otherwise might fall to his lot. For any method of equipment devised by the dealer must be tainted with his own interests and subject to whatever economies he safely can inject into it.

From the owner's standpoint, the growth of the stock equipment affords a measure of car values by a process of secondary, though by no means illogical, reasoning. The average motorist of the day is as fa-

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miliar with the better known accessory brands as he is with car manufacturers names and car reputations. Therefore he learns to discriminate between equipment which is installed with the honest purpose of enhancing the value of the car and that which is included merely to add to its apparent worth as set forth in advertising literature. Lamps, horns, wind shields and other attachments of good reputation add to the value of the car in the estimation of the "wise" element in the motoring public, and so does the adoption of a well known brand of speedometer.

So great is the wisdom of the modern buyer that he is thoroughly capable of making a mental appraisement of accessory values with a view to determining their relative proportion to the selling price of the car. Thus, manifestly cheap equipment installed upon a high-priced car causes the machine to be viewed with more or less suspicion, while expensive accessories cannot be relied upon to force the sale of a low-cost product. In the selection and adoption of the speedometer the wiser manufacturers recognize an added opportunity for strengthening the selling value of the car and at the same time of establishing its rating, so to speak, in the field.

### Body Possibilities in Metal.

Perhaps no industry has benefited more from the advancement of the art of sheet metal working than has the automobile business. At the same time, it may not be putting it too strongly to suggest that the average motor car manufacturer even yet is neglecting a few golden opportunities in this direction. The most natural thought in this connection when the application of rolled and pressed metal in other industries is considered is that the steel body has not begun to receive its due, despite the fact that not a few have been and are being produced.

It is also true that many of the bodies so produced and others on which stamped panels or other parts are used do not equal either in appearance or serviceability the results obtained by the older and laborious processes of fashioning the wooden body. Many authorities are of the opinion that as good results never can be obtained with metal as with wood, but it must be admitted that there is associated with the delicate and artistic craft of the cabinetmaker and fine carriage builder a certain affection which no other material inspires. That this is largely a matter of association, however, is a conclusion based on the notion that true art can find expression in any medium.

What has been done in the application of metal work to the interior trim of modern fireproof buildings affords an example in point. The all-steel railway cars which rapidly are finding their way into use furnish an even better illustration of what may be done in automobile building. In many instances the designer still is hampered by the traditional inclination to imitate as closely as possible the effects and even the appearance of the older materials. In a few instances, however, results have been obtained which show that satisfactory and even artistic as well as serviceable effects can be obtained with all metal finishes.

In its application to the mechanism of the car, sheet metal is receiving constant and appreciative attention; its use in body work would seem to be susceptible to even more extended use, however. It may be going a long way into the future to foresee the all-metal limousine or cab, or the convertible body of all-metal construction which may be made either open or closed at will. The advocates of the wood may urge that to obtain pleasing and permanent results with metal is a practical impossibility, but it must be remembered that the effects now obtained with wood are derived from centuries of experience with the material and many decades of experience in the construction of coachwork. What an equivalent period of development with modern methods will show it is not difficult to predict.

## COMING EVENTS

August 19-20, New York City, N. Y.—Motor Racing Association's 24 hours' race at Brighton Beach mile track.

August 20, Columbus, O.—Columbus Automobile Club's race meet.

August 23, Cheyenne, Wyo.—Cheyenne Motor Club's race meet on motordrome.

August 24-26, Omaha, Neb.—Omaha Motor Club's three days' endurance run.

August 26-27, Elgin, Ill.—Chicago Motor Club's road race and speed carnival.

August 30, Washington, D. C.—Automobile Club of Washington's hill climb.

August 31, Minneapolis, Minn.—Minnesota State Automobile Association's reliability run.

September 3 and 5, Indianapolis, Ind.—Grand Circuit meeting on Motor Speedway.

September 5, Denver, Col.—Denver Motor Club's 200 miles road race.

September 5-10, Minneapolis, Minn.—Automobile races at state fair grounds.

September 7-10, Lyons, N. Y.—Wayne County Agricultural Society automobile races.

September 7-10, Buffalo, N. Y.—Automobile Club of Buffalo's touring reliability contest; 800 miles.

September 9-10, Providence, R. I.—Rhode Island Automobile Club's annual meet at Narragansett Park.

September 10, San Francisco, Cal.—Automobile Club of California's Portola road race in Golden Gate Park.

September 10-12, Seattle, Wash.—Seattle Motor Club's race meet.

September 10-12, New York City—Motor Contest Association's Catskill tour and hill climb.

September 15, Oklahoma City, Okla.—Oklahoma Automobile Association's hill climb.

September 18, Los Angeles, Cal.—Annual road race up Mount Baldy.

September 18, Syracuse, N. Y.—Automobile Club of Syracuse-Syracuse Automobile Dealers' Association joint race meet at fair grounds track.

September 21-23, Louisville, Ky.—Louisville Automobile Club's annual reliability and endurance run.

September 24, Norristown, Pa.—Norristown Automobile Club's race meet.

September 24, Santa Monica, Cal.—Southern California Automobile Dealers' Association's annual road race; 200 miles.

October 1, Springfield, Ill.—Automobile races at state fair grounds.

October 1, Mineola, L. I.—Sixth annual Vanderbilt Cup race on Long Island Motor Parkway, under the auspices of the Motor Cups Holding Co.

October 7-8, Indianapolis, Ind.—Closing meet on Indianapolis Motor Speedway.

October 8, Philadelphia, Pa.—Quaker City Motor Club's third annual 200 miles road race in Fairmount Park.

October 10-15, Hot Springs, Ark.—Automobile races at Arkansas State Fair.

October 15, Mineola, L. I.—Motor Cups Holding Co., 278 miles international road race on Motor Parkway, for the Grand Prize of the Automobile Club of America.

October 20-22, Atlanta, Ga.—Atlanta Automobile Association's meet at motordrome.

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## MRS. FISHER GIRDLES THE GLOBE

### New Jersey Woman Completes the Long Journey in 13 Months—Some of her Varied Experiences.

The only woman who ever went around the world in a motor car completed her journey on Tuesday, 16th inst. She is Mrs. Harriett Clarke Fisher, of Trenton, N. J., who, accompanied by her nephew, Harold Fisher Brooks, a maid and a man servant, left her home city on July 19, 1909, in a 40 horsepower Locomobile on globe girdling intent.

Although making no attempt at speed, Mrs. Fisher's party completed the trip one month ahead of schedule, the journey occupying 13 months almost to a day. The total distance traveled was 25,000 miles, of which 18,000 were made in the car and the remainder by boat. The party brought back with them a Ceylon monkey and a Japanese spaniel, in addition to the Boston terrier which made the entire trip, the three animals having become quite friendly with each other.

Starting from Trenton, Mrs. Fisher came to New York, where a reception was given in her honor at the Automobile Club of America. The party then embarked for England and spent three months in Europe. From Italy the globe girdlers sailed for Bombay, India. This land of mystery was explored quite thoroughly, and the people and customs of the country impressed Mrs. Fisher more strongly than those of any other place she visited. She contemplates returning there for a more extensive study of the people and conditions. The roads in India, where the party covered 3,000 miles, were quite good. From Ceylon the tourists sailed for Japan, where some thrilling experiences were encountered on the narrow roads, and mountain passes. The country is not suitable for extensive touring. While in the Flowery Kingdom Mrs. Fisher was received by the Mikado. After landing at San Francisco the party crossed the continent and suffered many hardships on the bad roads.

At Tarrytown, N. Y., a welcoming party met Mrs. Fisher and escorted her to the city, where she made a brief stop at the Locomobile branch, Broadway and 76th street. She then resumed her journey, which ended at Trenton on Tuesday night. At its meeting that night, the Trenton common council passed resolutions of congratulation for Mrs. Fisher.

Aside from broken springs due to the abominable roads no mechanical trouble was experienced. The party carried a complete camping outfit and spent many nights in the open rather than put up with the poor hotel accommodations. Mrs. Fisher, who operates a large anvil factory in Trenton, is known as the "anvil queen," and made the trip purely on her own initiative.

### Twenty Clean Scores in Long Island Run.

Although the award of individual prizes in the two days' Long Island reliability run of the Brooklyn Motor Vehicle Dealers' Association, which ended the 10th inst., had not been announced within seven days thereafter, it is known that twenty of the thirty cars in the competing class received perfect scores. A. R. Pardington, referee, found that so much time would be required for making up the complete awards that he gave out the clean score list several days in advance of the full announcement. The perfect twenty are as follows:

I. C. Kirkham, Columbia; L. A. Rourk, Haynes; P. Mahoney, Locomobile; W. H. A. Bruns, Hudson; H. G. Martin, Inter-State; P. J. McDermott, Stevens-Duryea; E. T. Bloxham, Maxwell; William Braden, Winton; Jacob Stark, Auburn; J. W. Mears, S. G. V.; F. A. Ainslee, E. M. F.; C. Smith, Kline; Arthur Gross, Speedwell; G. M. Wagner, Columbia; Emil Fiedler, Chalmers "30"; Leo Anderson, Midland; R. Smidt, Haynes; C. Fleming, Maxwell; W. J. Houldcroft, Crawford; Ellis Kulp, Pullman.

### Parry Makes Amends and is Restored.

It came out only this week that at a meeting of the A. A. A. Contest Board on July 21 action had been taken revoking the disqualification of the Parry Auto Co. from participation in sanctioned contests and reinstating it to good standing. In its application for reinstatement the Parry company offered satisfactory proofs that in refusing to abide by the Contest Board's decisions in the 1910 Glidden Tour and in applying for an injunction to the courts it was in ignorance of the contest rules which provide recourse for contestants with grievances. In consideration of the withdrawal of all court actions and the retraction of all derogatory statements the application for reinstatement was granted.

### Georgia Enacts Law Without Speed Limit.

The Georgia legislature, which now is in session, has enacted a new automobile law, which will become effective September 1st. It imposes a perpetual registration fee of $2, but does not require licenses for drivers. Non-residents are exempted for a period of thirty days. Except a requirement of six miles at crossings, bridges, curves, etc., no speed limit other than that which is "reasonable and proper" is provided for.

### Record Breakers Ahead of Their Schedule.

L. L. Whitman and E. I. Hammond, who are attempting to lower the transcontinantal record in a Reo "30," left Battle Mountain, Nev., on Tuesday afternoon, 16th inst., at that point being 8½ hours ahead of their schedule. Whitman's schedule calls for an eleven days' trip.

## NEW YORK DEFINES RECIPROCITY

### Its Residents Must Have Unqualified, not Half-Portion, Freedom in Other States —Far-reaching Decision.

Attorney-General O'Malley, of New York state, on Tuesday last, 16th inst., threw what is likely to prove a fresh and fiercely burning brand into the reciprocity warfare between the several states. In an official opinion he ruled that the only non-residents who are entitled to the free and unrestricted use of the highways of the Empire State are the citizens of those states which extend to New Yorkers the unqualified and unrestricted freedom of their roads.

New Jersey, as is well known, was the first to put up the bars against the rest of the nation, and long has extracted an "admission fee" from non-residents and is the only state that does not extend even limited reciprocity. The other Eastern states permit the free use of their roads for limited periods only, few of them exceeding fifteen days.

As the exemption provided by New York's new law, which went into effect on the first inst., applies "to the motor vehicles owned by a non-resident of this state only to the extent that under the laws of the foreign country, state, territory or federal district of his residence like exemptions and privileges are granted to motor vehicles registered under the laws of and owned by the residents of this state," Attorney-General O'Malley's decision is in effect that a reduced "tourist fee" or exemptions for limited periods only is not "like exemption," a point which, undoubtedly, is well taken.

It means that cars owned by residents of all other states must be registered in New York state at the prevailing rate of $5 to $25 per year, according to the horsepower, and otherwise conform to the provisions of the New York law.

### Disabled Driver Debarred From Racing.

Establishing a precedent in the administration of the rules governing sanctioned automobile racing in this country, the Contest Board of the A. A. A. has revoked the registration card issued to L. M. Dustin on the ground of physical disability. This is the first action of the kind the board ever has taken, and indicates a firm disposition to prevent further hazards in the form of incapacitated drivers attaching to the profession of motor racing. The A. A. A. contest board also has taken its first notice of amateurism by declaring forfeited the amateur status of Harvey Ringler and R. E. Beardsley for having accepted cash. Their re-registration and transfer to the professional class has been ordered.

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## ROBERTSON AGAIN BEATS DE PALMA

**Defeat is even More Decisive than in Previous Match—Hour Race Provides an Accident and a Surprise.**

If Ralph DePalma really desires to lower George Robertson's colors he will have to get a larger and faster car than the Fiat "Cyclone" to turn the trick, for on Saturday last, 13th inst., at the Motor Racing Association's second matinee meet at the Brighton Beach track, Robertson with his big Simplex administered another decisive trouncing to the Italian star in a match race. It was the second defeat within a few weeks that DePalma has received at the hands of the blond and smiling Robertson, and this time there was nothing fluky about it, for neither man had trouble of any kind.

In the time trials Robertson and DePalma were the only entrants, and, of course, the former showed greater speed. When he did not have Robertson to contend with, however, DePalma was up to form and scored two victories, and incidentally broke two track records— those for five and ten miles. Another record was erased from the slate in the hour grind, which furnished a double surprise in the person of Jean Juhasz, S. P. O., being returned the winner, and in a new mark of 59 miles. No Brighton meet is complete without at least one fence-breaking exhibition, and Saturday's affair was no exception. E. H. Parker, Fiat, supplied that thrill and came off unscathed. For driving the wrong way on the track Robertson was suspended for 30 days, but after a conference among the officials the sentence was revoked after he had apologized to the referee and promised to be good in the future and not again repeat the dangerous offense.

Although the Robertson-DePalma mill was the chief magnet it did not draw as well as on the occasion of their first meeting, about 8,000 people being present, while between 700 and 800 cars were parked about the grounds. The distance was three miles each heat, with standing starts. In the first heat Robertson had the pole, and after a good break he opened up a gap of 25 yards, which he maintained to the finish, winning easily in 2:43:67-100. The second heat again saw Robertson next the rail. He took the lead and toyed with DePalma, allowing the latter to draw up abreast and then pulling away from him with ease, and winning by 35 yards in 2:43:49.

In the mile trials Robertson scored 52:71-100 seconds, as against DePalma's 54:76-100. The track record is 52:60-100, made by DePalma.

Eight veterans of previous 24-hour grinds started in the hour race. Parker, Fiat, immediately took the lead and set a hot pace, which gave him a lap on Disbrow, Marion, in the seventh mile. After leading from the start, Parker blew a tire in the twenty-third mile on the first turn. The car went through the outer fence and uprooted a tree, but neither man nor machine was injured. Owen, Rainier, succeeded Parker as the leader and continued the fast pace, but Parker returned to the fray in 20 minutes and fought desperately to regain his lost distance, but to no purpose. Shortly after the fiftieth mile Owen blew a tire at the identical spot where Parker's accident occurred, but kept to the track. During the replacing Juhasz, S. P. O., who was trailing him, assumed the lead. He managed to hold it to the finish, reeling off 59 miles, three miles better than the old record. Owen was second with 56 miles, and Batts, S. P. O., was third with the same number.

In the ten miles, 301-600 class, DePalma led all the way and belted the old figures of 9:50 down to 9:31:51. Parker, Fiat, was second. Again in the five miles, free-for-all DePalma shattered his old mark of 4:43 and replaced it with 4:36:60. Disbrow, National, beat out Kulick, Ford, for second. The summaries:

Mile time trials—George Robertson, 90 horsepower, Simplex, time, 0:52:71-100; Ralph DePalma, 60 horsepower, Fiat, time, 0:54:76-100.

Pursuit race—Won by Frank Kulick, Ford; second, White, Staver. Distance, 3¼ miles. Time, 3:29⅘.

Ten miles, not exceeding 300 cubic inches—Won by Jean Juhasz, S. P. O.; second, E. H. Sherwood, Mercer; third, Frank Kulick, Ford. Time, 10:40:58.

Ten miles pursuit—Won by Jean Juhasz, S. P. O.; second, Joseph Taylor, Correja; third, Will Endicott, Cole. Time, 10:27:87.

Ten miles, 301-600 cubic inches—Won by Ralph DePalma, Fiat; second, E. H. Parker, Fiat; third, L. A. Disbrow, National. Time, 9:31:51.

Three miles, match, Ralph DePalma, 60 horsepower, Fiat, vs. George Robertson, 90 horsepower, Simplex—First heat won by Robertson. Time, 2:43:67. Second heat and match won by Robertson. Time, 2:43:49.

Ten miles, pursuit—Won by L. A. Disbrow, National; second, Leo Anderson, Midland; third, Ralph DePalma, Fiat. Time, 9:55:58.

Five miles, free-for-all—Won by Ralph DePalma, Fiat; second, L. A. Disbrow, National; third, Frank Kulick, Ford. Time, 4:36:60.

One hour race—Won by Jean Juhasz, S. P. O., 59 miles; second, W. H. Owen, Rainier, 56 miles; third, M. P. Batts, S. P. O., 56 miles; fourth, Frank Lescault, Palmer-Singer, 56 miles; fifth, Jack Rutherford, Stearns, 55 miles; sixth, Will Endicott, Cole, 53 miles; seventh, L. A. Disbrow, Marion, 51 miles; eighth, E. H. Parker, Fiat, 48 miles.

## OLDFIELD SHOWS AT WORCESTER

**Establishes a Track Record, of Course, but Meets a Tartar in Handicap Races—Orndorff Fools the Invaders.**

Having made quite a name for itself as a promoter of hill climbs, the Worcester (Mass.) Automobile Club took a new tack last week and gave Worcester its first taste of track racing at the Greendale track, on Thursday, 11th inst. It was an Oldfield circuit meet, which aggregation, by the way, now includes Lewis Strang, and, of course, they celebrated their first visit to the Wire City by leaving a new track record after them. Oldfield himself was the hero of the day, and in the Benz car romped around the track in 1:09⅘, which is 1⅗ seconds better than Fred Marriott's mark. Oldfield and Strang did a very thrilling little seesaw in the five miles open and made a cyclone wind-up, Oldfield winning by half a length. Time, 6:52⅕.

Strang, who drove a Chalmers, was an easy winner in the three miles pursuit; Orndorff, Chalmers, getting a very bad start, never was able to recover his lost ground. Time, 6:52⅕. Orndorff, who was a local favorite, got 50 seconds allowance in the three miles handicap, which proved just sufficient to make an exciting finish. He stayed in front all the way and arrived 20 feet ahead of Oldfield, Knox, who drove from scratch, and was rapidly overhauling him. Strang was third. Time, 4.11⅗. Although they cut the handicaps for the free-for-all the reduction was not sufficient to prevent Orndorff again finishing first from the 40-second mark. Strang and Orndorff had an interesting fight, but the latter pulled away from the visitor and beat him by 300 yards. Oldfield, Knox, took third. About 2,000 people were present.

The summaries:

Three miles, handicap, free-for-all—Won by H. C. Orndorff, Chalmers (40); second, Lewis Strang, Chalmers (35); third, Oldfield, Knox (10). Time, 4.15⅕.

Five miles, 600 cubic inches and under—Won by Oldfield, Knox; second, Strang, Chalmers; third, Orndorff, Chalmers. Time, 6:52⅕.

Three miles pursuit—Won by Lewis Strang, Chalmers; second, H. C. Orndorff, Chalmers. Time, 4:06⅖.

Three miles, handicap, 600 cubic inches and under—Won by Orndorff, Chalmers (50); second, Oldfield, Knox (scratch); third, Strang, Chalmers (35). Time, 4:11⅗.

Two miles, 160 cubic inches and under—Won by G. W. Largess, Hupmobile; second, H. C. Orndorff, Hupmobile. Time, 4:09⅘.

Time Trials—One mile, Oldfield, Benz, time, 1:09⅘; Strang, Chalmers, 1:20⅖. Two miles, Kerscher, Darracq, time, 2:25⅕.

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## MUNSEYITES REACH NEW LONDON

### "Historic" Tourists Safely Pass "Landmarks"—Of Twenty-nine Starters Four Penalized in Two Days.

Amid a drizzling rain, punctuated by fitful showers, the second of Frank A. Munsey's tours started early Tuesday morning, 16th inst., from Philadelphia. Seven o'clock was too early for anybody except a few intimate friends of the starters to be on hand, so the sparse spectators, as last year, were made up principally of policemen and factory hands on their way to work. Of the thirty-one entrants twenty-nine got away, including Frank Hardart, winner of last year's sweepstake in the Munsey contest, who again pinned faith to the big Elmore touring car. Since the elder Hardart, a baker and restaurant keeper, has been furnishing pastry to Quakers for many years it is only natural that he should occasionally reverse operations by seeking to "take the cake" from others.



GENERAL VIEW OF START OF MUNSEY TOUR

Somehow William Penn's descendants and others who saw the start found it a little hard to reconcile the getaway with the "color story" of the advertising tour dished up for the connecting links of the Munsey newspaper chain. The presence of Lewis Strang, in the Pierce-Racine, was a godsend to the reporters, inasmuch as it permitted them to reel off sentences about "contestants skilled in the school of long experience," which finally became as long and tangled as ticker tape during a stock market panic. Presumably by a rule of the business office, care was taken to observe in each story that the affair was "inaugurated without a hitch despite adverse weather conditions," also that "besides the natural beauty and historic interest attaching to the towns through which the contestants will pass, the roads selected are of the finest to be found in each State which the cars will enter." In addition it was noted that "conditions governing the tour, with regulations of speed according to the price and power of the cars, are so perfect that the smallest and most economically priced contestant has as good a chance to win as the great, high-priced, high-powered car."

There were only two women in the party, both daughters of Frank Hardart. Next to Strang, perhaps, the best-known driver was G. M. Wagner, in the Columbia, who was in the New York-Atlanta tour and the All-Connecticut run in a car of that make. Gary Carter was in the Munsey affair of last fall and drove in the Washington-Richmond newspaper contest of a few weeks ago. W. D. Arrison, like Carter, was also in both those events. The complete list of starters follows:

Division 1, 16 miles an hour—P. R. McKenney, Brush; D. E. McCoy, Brush; Kenneth Crittenden, Krit.

Division 2, 18 miles an hour—F. H. Peabody, Ford; James Cherry, Ford; Charles E. Miller, Ford.

Division 3, 18 miles an hour—R. M. Upton, Moon; L. M. Lambert, Maxwell; Tom Berger, Warren-Detroit; A. W. La Roche, Regal Plugger; Clarence LaMar, Great Western; Emery Kudson, Staver-Chicago; Harry E. Walls, Maxwell; Charles Fleming, Maxwell; Walter Scott, Crawford.

Division 4, 20 miles an hour—I. W. Dill and G. H. Covert, Inter-State; A. G. Carter, Washington; W. D. Arrison, Washington; Lewis Strang, Pierce-Racine; Harry Frisch and H. C. Prown, Enger; Ross Henwood, Ohio.

Division 5, 20 miles an hour—Fred Cassel, Glide; C. C. Fauman, Kline; Gordon M. Wagner, Columbia; A. S. Hardart, Elmore; A. T. Bailey, Corbin; Walter Donnelly, Cino; L. H. Shaab, Stoddard-Dayton.

Division 6, 20 miles an hour—D. A. Hall, Matheson.

The first day's journey was to West Point, N. Y., the luncheon stop being at Morristown, N. J., the very place, by the way, that was inhospitable enough a month ago to fine members of the Quaker City Motor Club for scattering confetti while passing through on a tour. There the motorists, without extra charge, were permitted to look upon the place where Washington made his headquarters during the Revolution. Mr. Munsey, by the way, did not announce the spot through a megaphone in the approved "rubberneck wagon" style. Wednesday the jaunt was taken up to New London, where the expanse of the Thames that has furnished shipping for so many college boat races, was viewed with more or less baited breath. To-day's schedule calls for a descent upon the modern Athens, but as last year's Munsey slate, owing to uncertain conditions, proved as elastic as chewing gum, shifts may be in order. From Boston it is announced the "party will 'skirt' the coast of New Hampshire and Maine to Portland," where the matches used to come from. After Portland a seemingly Biblical touch will be imparted by going to Bethlehem for Sunday, which place, however, is in the White Mountains, not Palestine. After a day for recuperation, Burlington, Lake Champlain, Lake George, Saratoga, Binghampton, Wilkesbarre, Harrisburg, Washington and Baltimore will follow. Between the pilot, pacemaker, starter, press and photographers there are eight official cars.

On the first day's run the Brush No. 13 was penalized three points for an involuntary stop of the motor, while the Inter-State received 49 points, three points for putting in oil on the road and the balance for labor in abstracting foreign metal from the transmission.

Smooth running characterized the second day, but at the New London finish two penalizations were improved. Ross Henwood, Ohio, lost 25 points for a gasolene leak, while Berger, Warren-Detroit, received four demerits for work done on the carburetter. That left 24 cars with perfect scores up to Wednesday night, the 17th.

### Matson to Drive Corbin Racers.

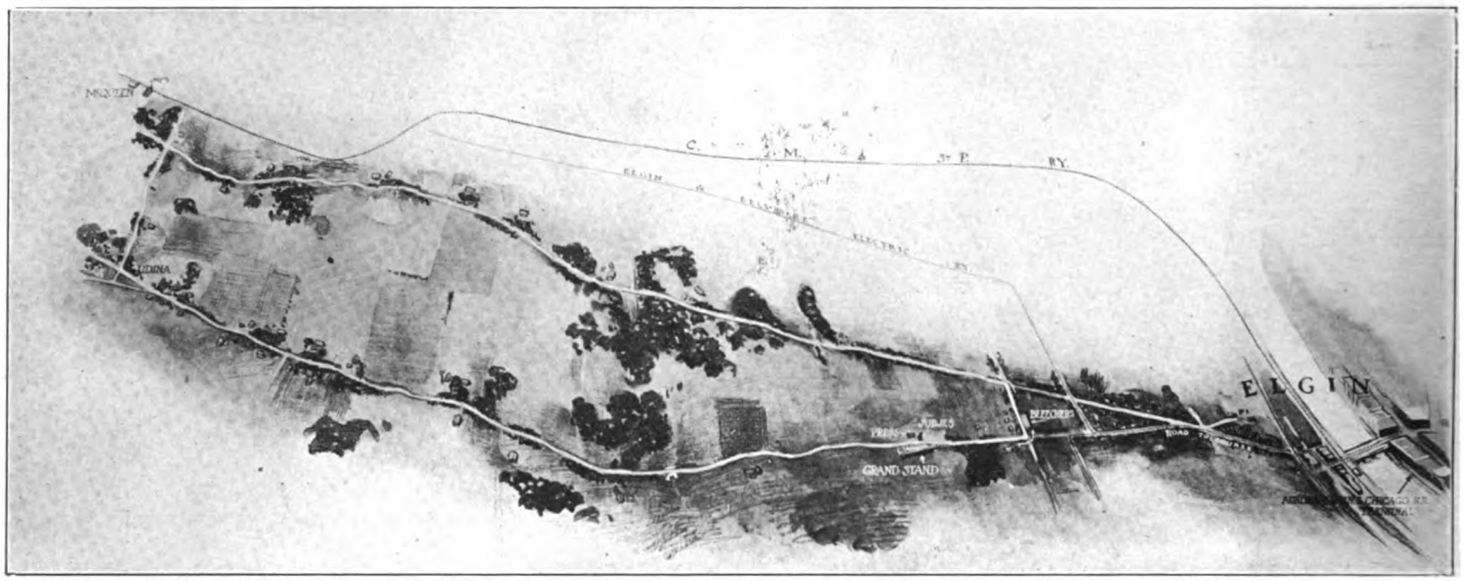
Although Joe Matson is in the employ of the Hudson Motor Car Co., Detroit, Mich., he will, nevertheless, drive a Corbin car in the Elgin National Trophy and Fairmount Park races, and probably in the Vanderbilt. This "farming out" of Matson, whose appearance at the wheel of the Corbin is in the nature of a return to his old love, is brought about by the fact that the Hudson company will not be represented in any of these classics, so that second call on his services was sought and secured with the permission of the Hudson company.

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## ELGIN RACE GAINS NEW PRESTIGE

**Elimination of Rival Projects Affords it National Importance—Program and Entrants are Announced.**

Thrown on the table, figuratively speaking, by the Lowell (Mass.) Automobile Club, through its inability to overcome local opposition, the national stock chassis races for this year have been awarded by the A. A. A. contest board to the Chicago (Ill.) Motor Club, which, in conjunction with the Elgin Road Racing Association, will stage the classics at Elgin, Ill., on Friday and Saturday, August 26th and 27th.




MAP SHOWING THE ROUTE OF THE ELGIN COURSE

By this official recognition and sanction the Elgin races, which already had succeeded to the local title of the "Western Vanderbilt," through the conversion of the Cobe race to a speedway event, gain still further prestige of a national order.

Four speed events will be decided during the carnival, three short-distance races, which will take place simultaneously on Friday, while on Saturday the boards, or rather roads, will be given over exclusivcly to the top liner, the 300-mile Elgin National Trophy race. All races will be for stock chassis only, and 1911 models may compete, provided they have been registered with the contest board prior to August 10.

Located close to the Watch City, the course, which is an 8½-mile circuit, with but four turns and no road crossings, is said to be exceptionally fast and well suited for such an occasion. The turns will be policed by Illinois National Guardsmen and flagmen, while the entire circuit will be enclosed by a wire fence. Oiling, banking of the turns and repairing of the surface now is in progress. Owing to its accessibility from Chicago and adjacent populous territory a record breaking crowd is expected. The program and entrants to date follow:

Friday, August 26—Fox River Valley Trophy, 135 Miles.

Open to stock chassis, as defined by Class B, Division 2-B of the 1910 contest rules; 161-230 cubic inches and 1,400 pounds minimum weight. Permanent possession of trophy and $300 in cash to the winner. Entrants: E. A. Hearne, Benz; W. N. Endicott, Cole; Frank Kulick, Ford; Al. Schillo, Overland; Harry Endicott, Kisselkar; Chester Cheney, Staver; G. Monkmeier, Staver.

Kane County Trophy, 170 Miles.

Open to stock chassis, Class B, Division 3-B; 231-300 cubic inches and 1,700 pounds, minimum weight. Permanent possession of trophy and $300 in cash to winner. Entrants: Joseph Dawson, Marmon; Ray Harroun, Marmon; Ralph Ireland, Midland; Al. Schuler, Overland; Cino, not named.

Illinois Trophy, 204 Miles.

Open to stock chassis, Class B, Division 4-B; 301-450 cubic inches and 2,000 pounds minimum weight. Permanent possession of trophy and $400 in cash to the winner. Entrants: J. F. Gelnaw, Falcar; W. H. Pearce, Falcar; George Schoeneck, Kisselkar; A. Monsen, Marion; Marmon, not named; Al. Livingstone, National; A. W. Greiner, National; E. C. Gooney, Velie; J. H. Stickney, Velie.

Saturday, August 27—Elgin National Trophy, 300 Miles.

Open to stripped stock chassis, as defined by Class B, with a piston displacement under 600 cubic inches and a minimum weight of 2,300 pounds. Possession of trophy for one year and $1,000 cash to the winner; second, $300; third, $200. Entrants: Harry F. Grant, Alco; Joseph Matson, Corbin; H. Saynor, Simplex; A. W. Greiner, National; Al. Livingstone, National; Guy Carpenter, Matheson; Ray Harroun, Marmon; Joseph Dawson, Marmon; A. Monsen, Marion; Ralph Mulford, Lozier; George Schoeneck, Kisselkar; E. P. Scheifler, Jackson; Black Crow, not named.

### Algonquin Climb Off; Will Build Hill.

Rather than comply with the unreasonable demand of the McHenry county authorities for a bond of $20,000 to indemnify them for damage to the roads, the Chicago Motor Club has postponed its annual climb at Algonquin, Ill., until it can build a hill. The new date set is September 15th. Perry hill, over which the trouble arose, will be abandoned altogether and a new hill which will be half a mile in length is now under construction on the property of a farmer who is in sympathy with the motorists. He has given the club a five years' lease of the property for a nominal sum, and this new proposition caused the club to abandon its contemplated construction of a hill near the Morton house, which it was found would prove too expensive. Phillips hill will be retained so that the twin climbs which distinguish the contest from others will remain a feature.

### Motor Cars Effective for Riot Duty.

Another use for the automobile has been discovered by the police of Atlanta, Ga. During a riot the crowd became so dangerous that the few policemen were unable to scatter them by any of the usual means; they requisitioned several big touring cars and in them charged the mob from all sides. The sight of the big cars coming towards them caused the fighting men to run in all directions. Quite a number of the rioters were struck by the speeding cars and bruised.

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## MOTOR TRUCKS DO GOOD WORK

**Only Eight of 69 Starters in Philadelphia-Atlantic City Test Fail to Finish—Scores not yet Tabulated.**

Sixty-one of the 69 motor trucks that started last Friday morning, 12th inst., in the commercial vehicle reliability run from Philadelphia to Atlantic City and return, 120 miles, finished that contest the next evening with creditable showings. The total load carried by the 69 starters was 117 tons, the heaviest single burden being seven tons, while the smallest tonnage was 600 pounds, three cars having that total.

### STARTERS IN THE PHILADELPHIA-ATLANTIC CITY TRUCK TEST.

Manufacturers' Division.

Class A (1½ tons capacity and less) 15 miles an hour

| Car. | Entrant. | Driver. |
|---|---|---|
| Randolph | Randolph Motor Car Co. | R. G. Shuert |
| Chase | Commercial Motor Car Co. | W. F. Wood |
| Chase | Commercial Motor Car Co. | R. L. Ferris |
| Chase | Commercial Motor Car Co. | W. J. Burns |
| Rapid | Rapid Motor Vehicle Co. | James Carey |
| Martin | Martin Carriage Works. | E. L. Kraft |
| Martin | Martin Carriage Works. | John M. Bowers |
| Torbensen | Torbensen Motor Car Co. | Allen Torbensen |
| I. H. C. | International Harvester Co. | W. A. Bauer |
| I. H. C. | International Harvester Co. | Samuel B. Shock |
| Buick | Buick M. C. Co., Philadelphia Branch. | Willie Thompson |
| Buick | Buick M. C. Co., Philadelphia Branch. | Edward Davis |
| Atterbury | Finnesey & Kobler. | M. Kobler |
| Franklin | Franklin Motor Car Co. | W. R. Coughty |
| Hart-Kraft | Hart-Kraft Motor Truck Co. | R. B. Lawrence |
| Grabowsky | Edgar W. Hawley. | G. G. Stranahan |
| Overland | W. J. Sprankle. | D. McDermott |
| Victor | Victor Motor Truck Co. | C. E. Shaw |

Class B (between 3001 pounds and 5999 pounds) 12 miles an hour

| | | |
|---|---|---|
| Garford | Garford Motor Trucks Works. | Ritter |

Class C (three tons and more) 10 miles an hour

| | | |
|---|---|---|
| Frayer-Miller | Kelly Motor Truck Co., of Philadelphia. | Harry Webber |
| Schleicher | Schleicher Motor Vehicle Co. | Alfred Besser |
| Standard Gas and Elec. | Standard Gas and Elec. Power Co. | W. Hunsberger |
| Gramm | A. T. Gardiner. | Archie Nobb |
| Packers | Packers Motor Truck Co. | C. H. Smith |

Private Owners' Division

Class A (1½ tons capacity and less) 15 miles an hour

| | | |
|---|---|---|
| Autocar | Strawbridge & Clothier. | George Smith |
| Autocar | John Wanamaker. | R. Crossing |
| Autocar | Bailey, Banks & Biddle. | John J. Frewen |
| Autocar | Bailey, Banks & Biddle. | Jos. P. F. Daly |
| Autocar | Lindsay Brothers, Inc. | J. Horace Lindsay |
| Autocar | Consolidated Rubber Tire Co. | James Justice |
| Maxwell | Coca Cola Company. | A. A. Whitcomb |
| Autocar | Cluett, Peabody & Co. | John A. O'Neill |
| Autocar | Cluett, Peabody & Co. | John M. Beatty |
| Autocar | E. Bradford Clarke. | Frank Donnelly |
| Autocar | Fritz & La Rue. | Frank J. Scullin |
| Rowan | Wright, Tyndale & Van Roden. | A. W. Kneer |
| Autocar | Michael Del Collo. | M. Del Collo |
| Autocar | Eshleman & Craig. | Elmer Baurichter |
| Autocar | J. E. Caldwell & Co. | E. Keller |
| Autocar | A. F. Bornot Brothers Co. | George Myers |
| Renault | A. F. Bornot Brothers Co. | J. G. Carvill |
| Autocar | Theo. F. Siefert. | B. Siefert |
| Autocar | J. S. Ivins Son. | H. V. Fancey |
| Cartercar | Kellogg Toasted Corn Flake Co. | W. S. Kennetsby |



TWO OF THE HEAVILY LOADED TRUCKS—



THE MACK AND THE FRAYER-MILLER

The affair, which was under the auspices of the North American newspaper and the Quaker City Motor Club, was intended to and did demonstrate that merchandise can be motor delivered at such distances in less time and with less expense than by express and fast freight. Such service should prove as important a supplement to railroad transportation as has the interurban trolley in many districts.

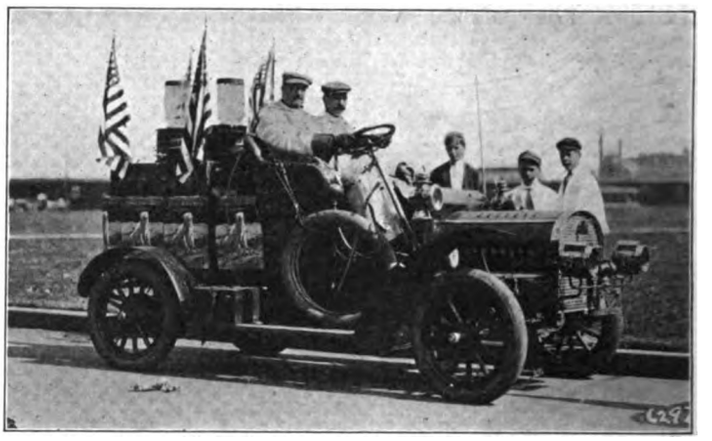
It will be several days, at least, before the findings of the committee are made known, inasmuch as the figures will include also the gasolene, oil and electric costs per mile. That will be possible, since a uniform charge was made for supplies. According to an observer with a penchant for figures the combined power of the starters was equivalent to 1,335 horses.

The nominal start was from the City Hall, Philadelphia, and necessitated crossing the Market street ferry to Camden, the real starting place. Due to special provisions made, the 69 large trucks and small ones all were on the other side of the Delaware within 30 minutes of the time the first crossed. Possibly in years to come the achievement may be handed down along

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EXAMPLES OF HEAVY AND LIGHT COMMERCIALS



THE GAGGENAU AND RAMBLER TRUCKS

| Car. | Entrant. | Driver. |
|---|---|---|
| Autocar | Crane Ice Cream Co. | Althouse |
| I. H. C. | C. M. Ware | C. M. Ware |
| I. H. C. | S. F. Slaymaker | S. M. Slaymaker |
| Autocar | C. J. Heppe & Son | K. W. Poole |
| Autocar | Charles W. Young & Co. | W. W. Heeley |
| Autocar | R. G. Wood | Jerry Callopy |
| **Class B (3001 pounds to 5999 pounds) 12 miles an hour** | | |
| Motor Commercial | Suburban Auto Express Co. | M. Plush |
| Frayer-Miller | Dives, Pomeroy & Stewart | E. O. Bennett |
| **Class C (three tons and more) 10 miles an hour** | | |
| Packard | John Wanamaker | Wm. Danforth |
| Reliance Truck | J. B. Van Sciver Co. | |
| Alco | Gimbel Brothers | |
| Alco | Gimbel Brothers | |
| Frayer-Miller | Fleck Brothers | A. Jones |
| **Electric Vehicle Division** | | |
| **Class A (1½ tons capacity and less) 12 miles an hour** | | |
| Commercial Truck | John Wanamaker | Harry McCargo |
| Commercial Truck | Bergdoll Brewing Co. | Fred Bauer |
| Commercial Truck | American Brewing Co. | Robert Rother |
| General Electric | General Vehicle | |
| **Class B (3001 pounds and 5999 pounds) 10 miles an hour** | | |
| General Vehicle | Bergdoll Brewing Co. | Harry Wright |
| Commercial Truck | John Wanamaker | Thos. Kelly |
| Commercial Truck | American Brewing Co. | F. Flubacher |
| **Class C (three tons and more) 8 miles an hour** | | |
| Commercial Truck | American Brewing Co. | Karl Bey |
| General Vehicle | Shane Brothers & Wilson | |
| **Mammoth Trucks (gasolene, more than four tons) 8 miles an hour** | | |
| Mack | Shane Brothers & Wilson | E. Purgeon |
| Gaggenau | Benz Import Co. of America | P. W. Gaylor |
| Mack | Walter T. Wilson | |

with that of George Washington's passage across the stream.

The gasolene cars first were divided into two divisions, under the category of manufacturers' and private owners' divisions. Then each division was subdivided into classes, according to capacity. The electrics, of which there were nine, comprised a division by themselves, similarly separated into classes. The prizes offered were for ability to maintain a time schedule, according to size and economy of fuel. Four of the entrants failed to put in an appearance. Much ingenuity was shown in the disposition of loads, largely with a view to displaying signs and banners to the best advantage.

As the boardwalk had to be crossed on the outskirts of Atlantic City, the managers prudently made a special provision by which the three biggest trucks were put in a special class, compelling them to unload at Absecon and then after going into town pick up their freight again, there, on the return journey. It was fortunate that such a course was followed, for as it was the biggest electric went through the boardwalk in getting over, but did no damage except to the planks. In consequence that electric was transferred to the "mammoth vehicle" class cars.



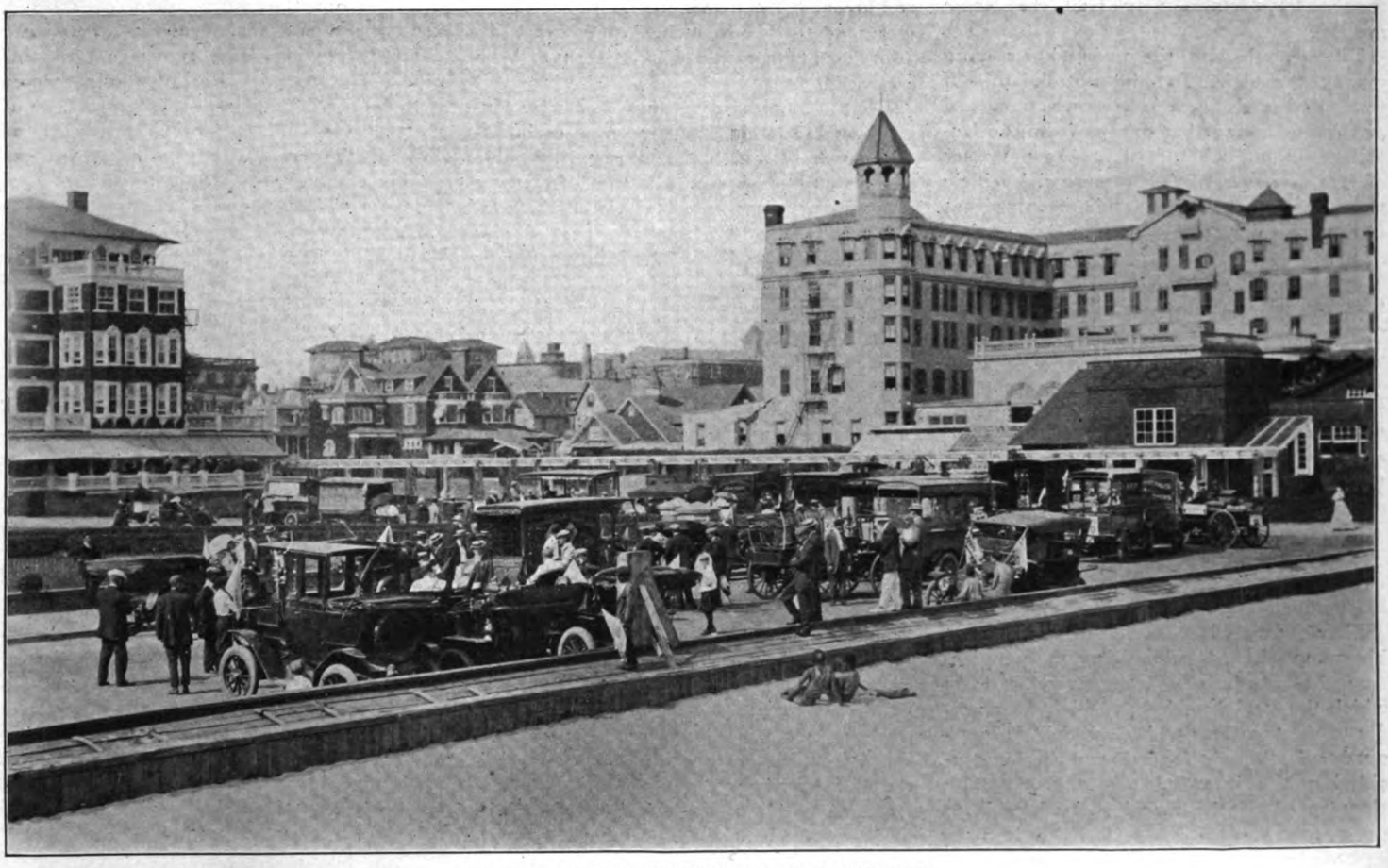


TWO VIEWS SHOWING THE KIND OF ROADS COVERED BY THE PHILADELPHIA-ATLANTIC CITY CONTEST

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THE TRUCKS GETTING INTO LINE AT CAMDEN



ARRIVAL OF THE TRUCKS AT ATLANTIC CITY

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Although no road difficulties were encountered, the trip was not without plenty of incident. Arrived at Atlantic City it was arranged that all the trucks should be parked, over night, on one of the ocean piers, as an object lesson. To do so a runway of heavy planks was laid across the boardwalk, the foundations of which were also strengthened. A few of the trucks were too high to gain entrance to the pier, so they were stored near by. The Packers truck, which fell in the third class, having a capacity of three tons or more (the special class having a rating of not less than four tons), had the hardest luck on the trip. It did the first 30 miles in 92 minutes, 24 minutes less than the allowance for the smallest vehicles. The tires, however, were unequal to the strain, wearing down to the rind. No extra tires had been carried and none were obtainable in Atlantic City. Finally after telephoning to New York, a special locomotive was dispatched with tires. When they arrived, however, they could not be made to fit, so withdrawal followed.

The Grabowsky car was three times in collision. The last occasion was at the end of 26 miles, resulting in broken lamps and other damage. The driver declared that the truck which ran into him had been jockeying for position. The outcome of the accident was that rather than be penalized for making repairs, the Grabowsky was withdrawn as a contestant, but pushed ahead to Atlantic City and then returned to the Philadelphia City Hall, that same evening.

Tire trouble was the main shortcoming among the eight that did not finish. Of that number six were in the manufacturers' division, showing that drivers from the factories did not add prestige. As a matter of fact, however, so few commercial vehicle tests have been held in this country that few of the drivers could be called professionals.

Two of the eight did make the return trip, but not as contestants. Of the aforementioned eight, five were small trucks while the other three belonged to the largest class not the special.

During the Atlantic City stop a dinner was given to the drivers and observers at one of the hotel gardens by the Autocar Co., which, with 20 starters, had the largest representation.

### Torpedo Effect for a Char-a-Banc.

That torpedo construction is destined to be confined to the realm of the light and swift pleasure car need not for a moment be supposed. Already a British manufacturer has produced a large char-a-banc in which the straight-sided and high-door profile of the "battleship" body is faithfully reproduced, though for what purpose, considering the intended use and generally slow speed of the machine, is difficult to say.

## ALCO ADOPTS NEW CARBURETTER

### Extreme Flexibility Claimed for it—All Other Changes of Minor Nature—Price of One Model Reduced.

In announcing the new Alco line, the American Locomotive Co., New York City, indicates a continuance of its former product, improved only insofar as two models are concerned, and otherwise unchanged or only very slightly altered. The six-sixty and four-forty touring models, the 22 horsepower town car and the 16 horsepower cab are to be continued, as is the three-ton truck. The two smaller cars remain exactly as specified in the current catalog, while the truck also is unchanged mechanically. In the matter of price, however, the truck is listed at $3,650, instead of $3,500 when equipped with the standard form of express body. The smaller of the two touring cars also has undergone a price revision and now sells for $4,500, with seven-seated touring, small tonneau or runabout body, instead of $4,750, as formerly.

The most pronounced changes in the line have been inaugurated in this particular model. Its power has been increased, for one thing, this change having been brought about by increasing the cylinder bore 3/8 of an inch, the dimensions now being 5⅛ by 5½ inches, instead of 4¾ by 5½ inches bore and stroke. The valve diameters have been increased to 2 11-16 inches, and both radiator and pump capacity likewise have been increased.

Briefly summarized, these changes include the adoption of a new Alco carburetter, which is said to be extremely flexible and which is designed to permit of running at unusually low rates of speed in conformation with the requirements of city traffic. The Bosch dual ignition system is retained, but with the adoption of a new form of coil, only the vibrator part of which extends through the dash board, and also with increased battery capacity. The motor now is set horizontally, instead of being inclined slightly toward the rear.

Newly-designed forged steel strut rods have been introduced, while the universal joints now used on the propeller shaft are of particularly stanch and massive design. The radiator is supported on trunnion bearings to afford it freedom from the strains set up by the inevitable weaving of the frame, and it is tied to the dash by the rod which supports the top of the bonnet. The depression lever has been removed from the inside of the dash and in its place a rod now extends to the front of the radiator, so that the compression may be relieved by the operator himself at the moment of cranking.

In the matter of body design only slight changes have been made. Indeed, it is difficult to distinguish between the present line of bodies and those which have been standard in the most recent Alco products. The regular tire equipment is to include Continental quick detachable and demountable rims. Continuing its early policy of marketing its product fully prepared for road service, including a full line of accessories and the top, the American Locomotive Co. will sell its new cars in complete touring trim.

### Substitute for the Starting Crank.

Substitutes for the starting crank by no means are as prevalent as the average motorist could wish, and therefore considerable interest attaches to the introduction of any new device of the sort. The latest starting arrangement has been placed on the market by the Automatic Starter Co., Chicago, Ill., and is simply known as the Automatic Starter. Avoiding mechanical contraptions attached to the engine crank shaft, it follows the ordinary principles of engine operation to the extent of providing an independent carburetter and manifold, through which starting charges of gas may be injected into the various cylinders of the engine without in any way interfering with normal operating arrangements.

In putting the device into action the driver merely works a pedal or lever, which causes a number of pistons to reciprocate simultaneously in as many cylinders. With one pump cylinder for each engine cylinder, this permits a separate charge of gas to be drawn from the independent carburetter, compressed and forced through automatic check valves into each cylinder of the engine. The regular ignition system causes it to be fired. Under the circumstances, of course, this suffices for the first turn or two of the crank shaft, after which the engine commences to operate in the regular way. The system is marked by ample safeguards against mishap in the way of back-firing, and is simple in operation.

### New Compound for Closing Cracks.

Although the H. W. Johns-Manville Co., New York City, takes considerable pride in its success in "stopping leaks," its efforts are not, as might be inferred, along the direction of installing or devising new bookkeeping or cost accounting systems, but more directly in line with its main business, which, as is well known, consists in the preparation and marketing of various asbestos products. The "J-M Leak-No," which is the medium of prevention herein referred to, is a metallic compound especially devised to prevent leakage in "anything made of iron or steel." As indicated in a newly-issued mailing card, Leak-No is intended primarily for use about the busy power plant or factory. There is little doubt, however, that the fertile motorist might find it a handy material to have at hand in case of cracked water jackets or other misfortunes of a kindred nature.

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## NEW BODIES FOR THE MARMONS

**Of So-called Torpedo Type but of Strikingly Distinctive Design—Other Alterations in the Indianapolis Product.**

Building on the strength of a successful season of production and marketing, in which no small part of the stamina of the product has been revealed in its racing exploits, the Nordyke & Marmon Co., Indianapolis, Ind., announces its intention of continuing to build the model "Thirty-two" substantially as in the past. The decision, of course, is tempered to the extent of admitting a new and entirely up-to-the-minute line of bodies. But it almost goes without saying that in the production of these bodies the Marmon method of construction has been retained, namely that method which involves the use of a cast aluminum base with sheet metal seat backs.

The new offerings in the way of bodies are illustrated by the accompanying pictures. As hitherto, but one style of chassis is produced, and the three styles of body here shown are adaptable to it and, therefore, render the line what is virtually a composition of three distinct types. In drawing the new designs, due attention has been paid to the present trend in the way of closed fronts and this effect is presented in the five-passenger touring car, the snug and attractive small tonneau and also, in revised and refined form, in the two-passenger roadster, which is an exceedingly smart looking little car. Limousine, landaulet and coupe models also are to be produced, though only on order.

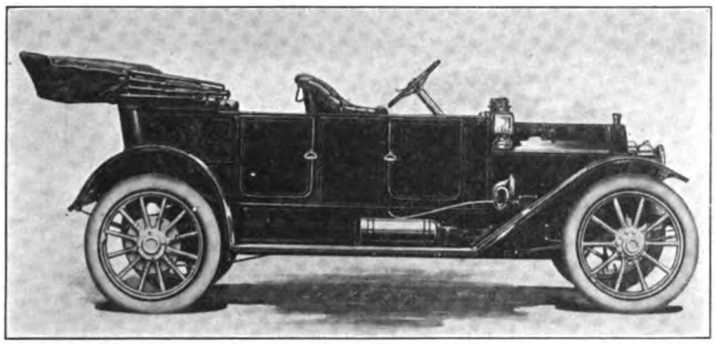
In the delineation of the standard bodies the straight line effect has been obtained, though without any sacrifice either to effectiveness of line or of the comfort of the passengers. The roadster model in particular is noteworthy not only for its appearance, but for its appointments, which include the trunk, gasolene tank and tire rack, which are mounted behind the seat.

By increasing the wheel base four inches, making it 120 inches in the new models, a corresponding amount of room has been added to the bodies and the general range of the cars has been improved. Except for this, practically no alterations, save those of minor import, have been made. This alteration is important, however, in that besides affecting the interior arrangements of the bodies and altering the outward appearance of the car to some extent, it permits it to be rendered even more easy riding than previously. As heretofore, particular attention has been paid to the design and construction of the spring suspension, which is of the full elliptical pattern behind, and semi-elliptical in front.

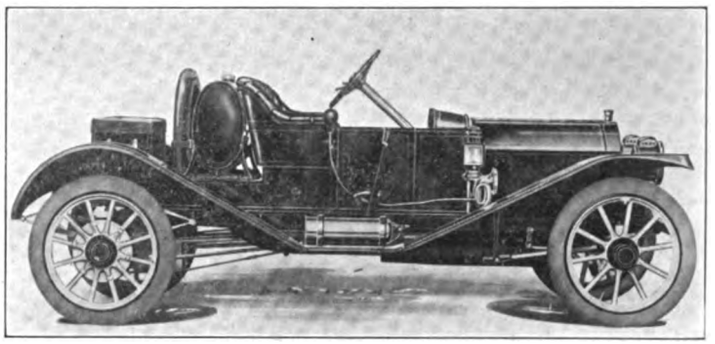
In regard to the mechanical arrangement of the machine, its original characteristics are retained. They include notably the T-head form of cylinder, with paired castings and unique piping and siding arrangements; the fabric-faced cone clutch and the axle-mounted change gear set, all of which manifest striking details. The Marmon is a factory product to a greater extent than is true of most cars, and is produced under close and exact manufacturing systems. In this respect it has the advantage of close study and accurate assembling methods, which it is difficult to achieve with a car constructed to a large degree from stock parts.

The cylinder dimensions are 4½ by 5 inches, bore and stroke, and the rating of 32 horsepower, it should be observed, is that of the A. L. A. M. formula. The valves are interchangeable, and arranged after a fashion peculiar to this company. The intake piping is carried up from the carburetter in a single lead, with a short T-fitting at its upper end, which conducts the gas directly to either of the two cylinder groups. The peculiarity of the valve, or rather cylinder, arrangement lies in the fact that the gas is drawn into the first and fourth cylinders over the closed valves of the second and third. This arrangement, while not employed by other builders, has been in use by the Nordyke & Marmon Company for several years and possesses the advantages of simplicity and directness. It also is advantageous in that it eliminates all circuitous passages and provides a short path for the gas to travel.

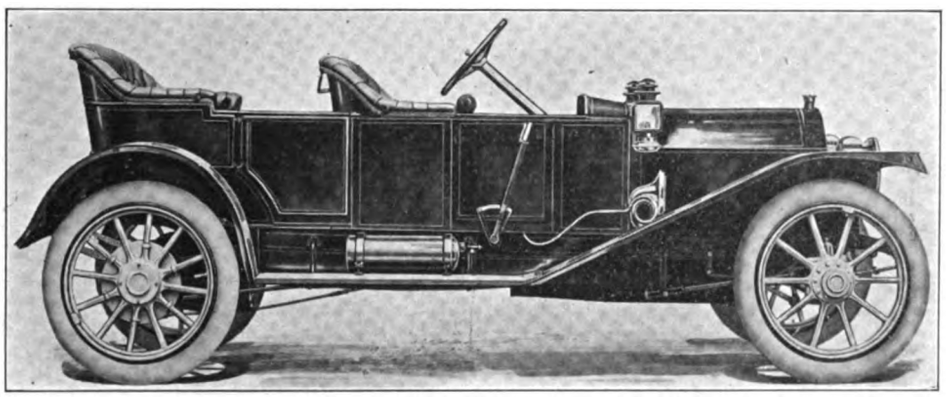
The Marmon oiling system, another original feature, also has been in use for several years, and has proved eminently successful. In general principle it is not unlike that employed by a number of other manufacturers, but its detail arrangement



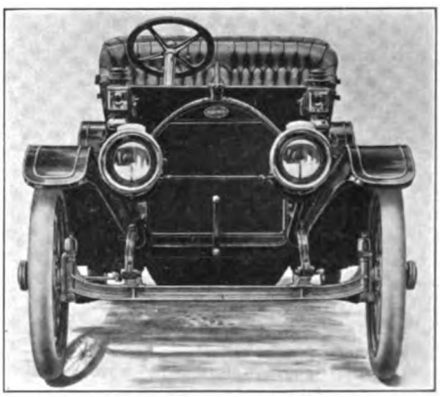
THE NEW STYLE MARMON TOURING BODY



MARMON ROADSTER IN ITS LATEST FORM



SIDE AND FRONT VIEWS OF MARMON "THIRTY-TWO"



CLOSE-COUPLED CAR

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## TAKING CARE OF NEW YORK'S ROADS

### Not Much Evidence of it, but State has Theory and Bureau—How they are Supposed to Work.

Motorists of New York state, who have seen many miles of new road quickly go to ruin on account of insufficient or entire lack of care, probably will be surprised to learn that the Empire State boasts of a bureau whose sole duty it is to see that the highways are kept in first class condition. This bureau, which was organized in the early part of 1909, is officially designated as the Bureau of Maintenance and Repair. and is supposed to work as follows:

A first deputy has charge of the maintenance and repair of roads after their completion, and his whole time and attention should be given to this one subject.

The state has been divided into six divisions. In charge of each of these divisions is a superintendent of repair. This superintendent of repair has charge of all the work of maintenance and repair in his division, except the work of resurfacing, which is superintended by the division engineer, who has charge of that division under the construction department.

Each division is divided into sections comprising one or two counties, according to the mileage of completed roads in those counties. A highway inspector, who is a practical man in so far as it has been possible to obtain such men from the civil service list, is assigned to each section. The completed highways are divided into patrols of from three to five miles each. A patrolman is appointed to care for the work continually on the patrol to which he is assigned under the direction of the highway inspector. The patrolman furnishes a horse and wagon having a capacity of about three-quarters of a cubic yard. These wagons are painted and marked with the number of patrol and the words "Department of Highways." It is the duty of these patrolmen, under the direction of the highway inspector, to work continually on their patrols, carting screenings or three-quarter-inch stone, to prevent ravel, repairing ruts, trimming the shoulders, cutting grass, opening the ditches, repairing guard rails, etc.

The patrolmen make a weekly report to the highway inspector, showing stations where the work was performed each day and the kind of work done. The highway inspector makes the rounds of his patrolmen as often as possible, directs his work and reports weekly to the superintendent of repairs, showing the roads inspected, their condition, and notes any absence of patrolmen from duty.

The patrolmen are provided with a staff containing a round metal disk on which is painted the number of his patrol and which he carries in his wagon on going to and from work and which he plants upright in the shoulder of the road opposite the place where he is working each day. This staff enables the highway inspector to know on his inspection trips on what part of the road the patrolman in working, so that in case he has gone for material he can wait until he returns.

The patrolman takes his orders from the highway inspector in charge of the section. The highway inspector in charge of the section takes his orders from the superintendent of repair in charge of the division, and the superintendent of repair reports daily to the first deputy on all roads inspected in his division, showing the county, number of roads, remarks as to their condition, and his advice as to their treatment. The superintendent of repair in charge of the division also assigns to the county superintendent, who is appointed by the board of supervisors, such work of repair as may be done during the season and which is of such magnitude that the patrol system is unable to handle it.

When it is necessary to resurface a road, plans and specifications are drawn, work is advertised, and it is let by contract.

The work done under the bureau of maintenance and repair on the whole has beeen fairly successful. As might be expected, some failures have been made due to poor material used for a cover or because the oil was not properly applied. The cost of treating one mile of 16-foot macadam highway, according to the method set forth in the above specifications and with a good grade of asphaltic oil, is approximately $425 a mile for one treatment.

In the work laid out for 1910 there are at least four or five hundred miles of asphalt macadam to be constructed by the penetration method and several miles of brick pavement.

### "Road Improvement" that Leads to Law.

Many Rochester motorists have filed complaints, and several have even instituted suits against the state authorities for damages sustained by the poor work on the state road running from Mendon to Canandaigua. The road is covered with tar without any additional dressing, and scores of tires, dresses and automobile bodies are said to have been ruined by the sticky tar. Motorists desiring to go from Mendon to Canandaigua are advised to proceed south towards Pittsford, Mendon and Ionia along the old state road, and then run due east to Canandaigua, as a means of avoiding the bad stretches.

### Oklahoma Referee Is Sustained.

Acting upon evidence which irrefutably established violations of the contest rules by the protestant, the Contest Board of the American Automobile Association has overruled the appeal of the H. H. Franklin Manufacturing Co. from the decision of the referee of the Oklahoma Automobile Association's reliability tour early in June and sustained the referee's action. in disqualifying the Franklin car for violation of the rules. The ruling of the board was based upon the presentation of evidence in the form of an admission by the Franklin driver that he had left the official course, and did not establish the fact that he had returned to it at the place of departure, despite notification that he was off the route. It further was shown that Rule 413 was violated by the riveting of bolts on the particular car in question by a method different to that regularly employed on the same model at the factory, the difference constituting a departure from the stock car rules.

### Guest who Sues Host Loses his Case.

Of great importance to motorists intending to tour Germany is a decision of the highest court in Germany relative to damages caused by an automobile accident to the occupants of the car. In the case in question, the owner of the car had permitted a merchant whom he knew to accompany him on a trip into the country. A blow-out occurred on the road, and the merchant was thrown to the ground with considerable force, sustaining serious injuries. He sued the owner of the car for damages, but although he carried his suit to the highest court was unsuccessful in obtaining a judgment. The supreme court decided that in so far as the transportation was a favor on the part of the owner of the car, the injured friend had no claim for any damages which might be sustained by him during the time such favor lasted. The court decided, also, that if the merchant had paid even the smallest compensation for the trip, he could have demanded full damages for any injuries sustained.

### Abandons Dying Child by the Roadside.

Although the great majority of chauffeurs have learned to respect the rights of pedestrians on country roads, there still are some driving cars who have no more right behind the steering wheel of an automobile than a maniac has to a deadly weapon. One of them last week figured in the most revolting accident that has occurred in some time. A high powered touring car without passengers in the tonneau was driven at a rate of at least 30 miles an hour through Schenk avenue, Matteawan, N. Y., and ran over the two-year-old child of George Verdi. The chauffeur stopped the car after the accident, tossed the child into the grass along the road as if it had been a bundle of rags, and proceeded on his way. A number of men witnessed his actions from a distance and running up found the child frightfully hurt and dying. They vainly attempted to pursue the car, but the offending chauffeur escaped.

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## STEARNS'S "VESTIBULE" BODY

### Cleveland Manufacturers Evolve a New Designation and an Individual Design —Distinguishing Characteristics

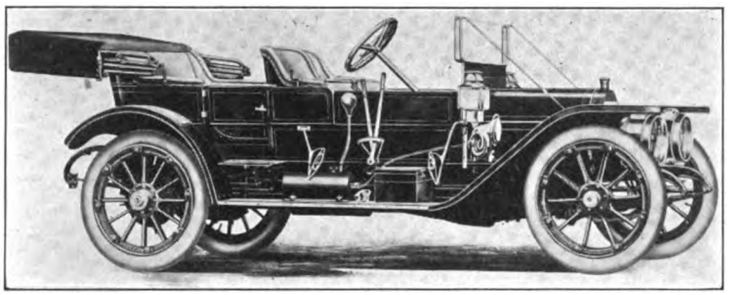
Despite the inevitable confusion of nomenclature there is unquestionable wisdom in the policy adopted by certain manufacturers in choosing individual names for their new style bodies. A case in point is the new Stearns "vestibule" body. In general class it belongs to the torpedo system of architecture. Yet it is utterly different from the ordinary concept of the torpedo body and also merits more discrimination than would be exercised merely by throwing it into the four-door class. This applies more particularly to the small tonneau form, which is distinctly individual and constitutes a modernization of the Guy Vaughn body of a year or two back, which was eminently individual.

The F. B. Stearns Co., Cleveland, Ohio, adheres to the policy of building its product on the series basis, but of avoiding season terminology in distinguishing between its various models. This provides for mid-season changes, if slight alterations be found expedient, without necessitating the declaration of an entirely new style of car. Also it creates an all-the-year-round market without any of the let-ups which are caused by prospective customers holding back in the hope of securing a little more for their money by waiting. Therefore, the chassis upon which the bodies here depicted are mounted, are designated merely as "new series" Stearns, and it may be added that they differ in no very great degree from the chassis which have been under construction at the Stearns plant for some little time.

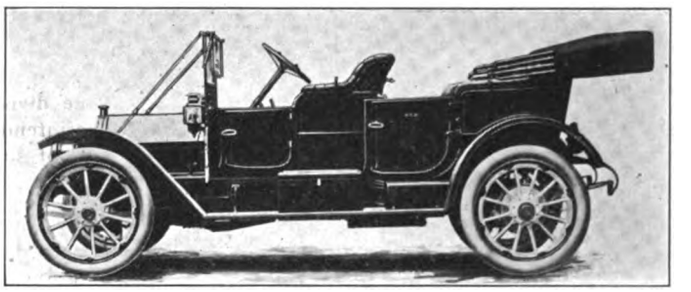
Two sizes of chassis are produced, one of "15-30" and the other of "30-60" horsepower. In both cases the enormous range covered by the rating is explained by the use of an original development of the multiple-jet carburetter principle. Both are of four-cylinder construction, but they differ to the very material extent that the smaller of the two is made with a block casting for the cylinders, while in the larger the cylinders are cast in pairs. Another material difference is that the 15-30 car has the change gear mounted on the rear axle in a peculiarly rigid manner, while the 30-60 car has the more nearly standard form of gear box mounted in the waist of the frame and is made with either shaft or chain drive.

The bodies for the new series cars are much the same in form for both models. They consist of touring and small tonneau types, both of which are provided with high sides and, therefore, are rendered both warm and dust-proof. The touring body for the smaller car is made to accommodate five passengers, whereas the longer and larger tonneau of the big model affords accommodation for five passengers in the rear, or seven in all, and has folding seats in the back, after the conventional fashion. Points of original design will be observed in the method of arranging the doors, in the drawing of the mud guards and in the vertical straight dash, surmounted by the folding wind shield.

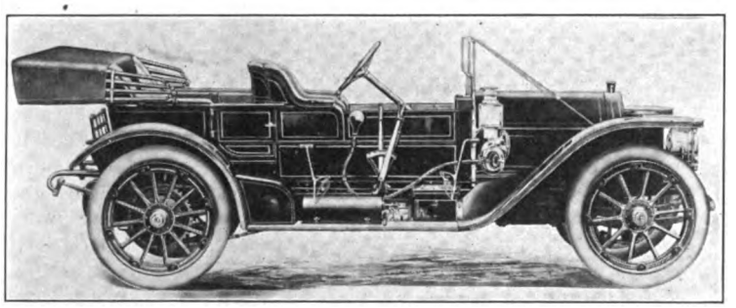
The small tonneau models are distinguished by the placing of the left front seat a little to the rear of that occupied by the driver. Besides affording the driver ample elbow room, which otherwise might be denied him in so narrow a body, this arrangement also renders the accommodation for the "preferred" passenger both commodious and comfortable. The sides of these bodies are extremely low, hence the general appearance of the vehicle is rendered decidedly rangy. On both models the gear shifting and emergency brake levers are placed outside the body, while due advantage is taken of the running board space on the right hand side for the mounting of spare tire equipment. In the pictures of the 30-60 cars it will be observed that both the shaft and chain driving arrangements are depicted. The large touring car is the one shown with shaft driving construction, whereby its similarity to its small sister car is measurably heightened.



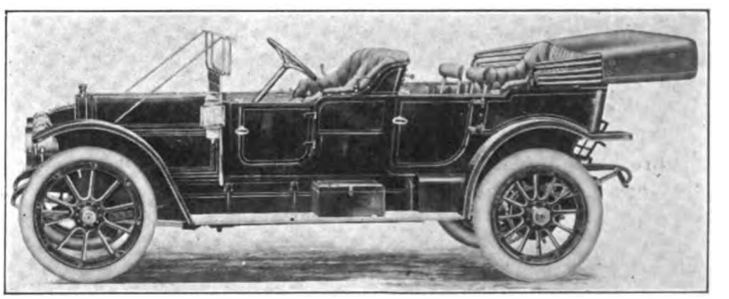
STEARNS 15-30 SMALL TONNEAU CAR



THE 15-30 MODEL AS A TOURING CAR



STEARNS 30-60 CHAIN DRIVE ROADSTER



THE 30-60 MODEL IN TOURING FORM

**Fuel and Drinks from Slot Machines.**

Recalling the days when bicyclists could obtain a supply of air for inflating their tires by depositing a small coin in the slot of an automatic dispensing machine, a Dayton (Ohio) inventor has produced the very natural and often talked-of wayside gasolene fountain. By a coin-controlled mechanism the device is arranged to deliver measured quantities of gasolene into a waiting receptacle, with which the stranded motorist may refill his empty fuel tank. It may be remarked in passing that the patent covering the gasolene dispenser also is intended to protect similar automatic provisions for assuaging the thirst of humans who have gone "dry." Indeed, if the plans of the inventor, who is E. H. Baker, are completely fulfilled, he soon will have silent though ever busy representation at every crossroad corner where motorists frequent.

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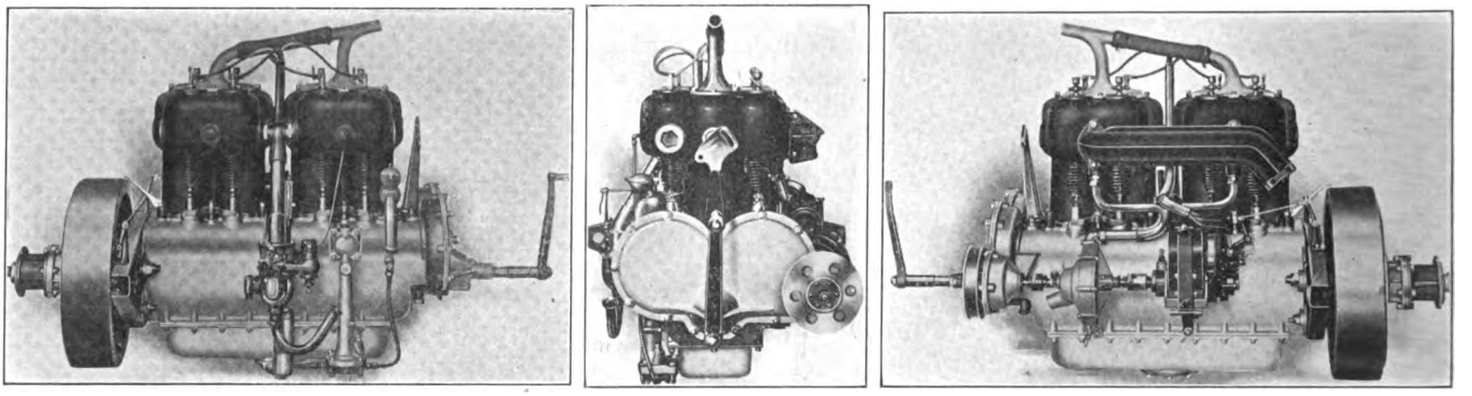
is distinctive. From a reservoir in the engine base the oil is raised by a special form of gear-driven pump, which is placed in a detachable housing, external to the crank case, and is fed through ducts in the crank shaft and connecting rods to the entire series of engine bearings. Suitable provision is made for filtering the returning overflow from the bearings, while, as a means of safeguarding the system against abuse, two independent methods of observing its action are provided. One is in the form of a float level indicator, mounted in a well at one side of the case, with its indicating rod rising in a vertical tube at one side. The other takes the form of an oil pressure gauge, which is mounted on the dash and which at all times indicates the amount of pressure which is applied to the system, thereby revealing at once any diminution in the rate of feed of the pump, of any tendency to choking up of the ducts or feeds.

One peculiar and commendable feature of the transmission system is that all moving parts are completely housed and protected from the inroads of dust and mud. This protection extends not merely to the driving parts, but to the mechanism of control also. The clutch shaft leads through a universal joint, which is supported very solidly in a cross frame member, to the propeller shaft proper, this member being equipped with but the single joint at its forward end and being entirely enclosed by the torsion tube. This member is stayed as to side stresses by means of diagonal braces which run from the axle extremities to the universal joint at the front end, which supports the tube and also resists the torsional load. Enclosed in an oval housing, which lies parallel to the torsion tube, are the pull-out rods by which the change gear mechanism is shifted.

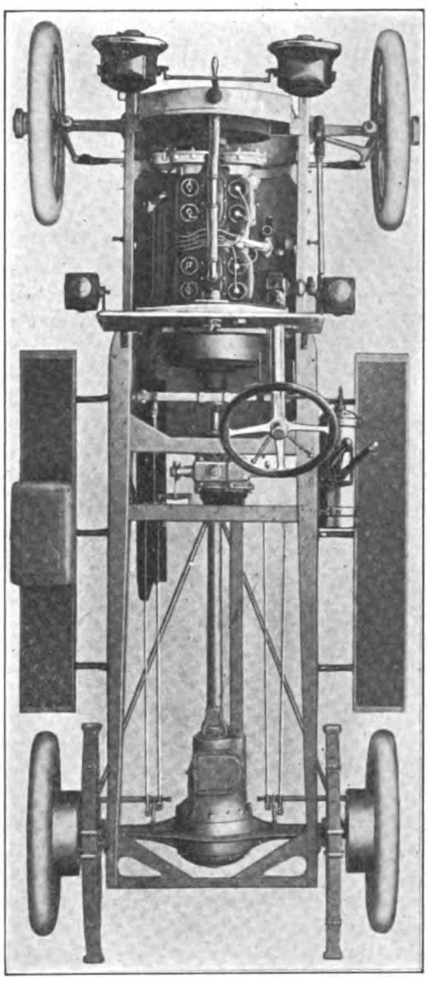
The rear axle unit is an exceedingly sturdy piece of designing, readily distinguished by the spherical form of the pressed steel housing in the center, and so constructed that the entire internal mechanism may be removed from the rear without dismounting the axle from the chassis, and, if necessary, without even removing the wheels. This arrangement is made possible, of course, only by reason of the use of the full floating type of axle construction. Originality in the system is displayed clear through to the design of the wheel bearings, which are of the single row type. By making the inner ends of the driving shafts a close fit in the differential members, the effect of widely separated double row bearings is secured, while the smooth running qualities of the system are assured.

Particular attention has been paid to developing the success of the braking system. This is insured by the adoption of large wearing areas and heavy linkage. Heavy front axle design and an adjustable steering gear, which is so constructed that all wear in the essential mechanism may be taken up by the adjustment of a single screw are other features which have been thoughtfully considered in putting the car together.

In the matter of equipment much the same standards prevail as heretofore. Eight-inch gas lamps, gas generator or Prest-O-Lite tank at the option of the purchaser; oil dash and tail lights, horn, coat rack, foot rest, pump, jack and complete outfit of tools, comprise the essentials. Tops and windshields are listed as extras. In the matter of price, the quotation for the standard finish and equipment now is $2,700, as against $2,650 formerly.



VIEWS SHOWING CONSTRUCTION OF THE MARMON "THIRTY-TWO" ENGINE



THE MARMON CHASSIS

**End of Pneumatic Tires Again in Sight.**

The pneumatic tire again—and for about the 99,999th time—is to be "put out of business." "A former German infantry officer" is the most recent "wizard" who has performed the feat, and his invention is so wonderful that it affords a sort of rocking horse movement instead of the usual up and down motion.

"He has shifted the point of elasticity, which formerly consisted of metal spring plates under the body of the wagon, to the axles of the wheels by an ingenious angle lever system and the result is astonishing," says the German story. "The inventor uses ship's cable for hooping, but even with wooden wheels he can maintain a complete elastic course over cobblestones, country roads, etc., as the wagon jolts are no longer up and down, but move in a horizontal plane forward and backward. He can cross the pavement curb without the occupants of the automobile feeling a jolt, as the body of the wagon is not raised, as formerly, but drawn under."

**"The A B C of Electricity." Price, 50c. Motor World Pub. Co., 154 Nassau Street, New York City.**

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## CONTRASTS BUSES WITH "TRAMS"

### Expert Reveals Striking Economies in Motor Vehicle Service—Rail and Railless Systems in Close Rivalry.

Recognizing its inherent possibilities advocates of motor omnibus transportation have not been slow to predict a great future for it. At the same time, and especially in the United States, it is commonly regarded as being still in its incipiency. Therefore, there is something decidedly radical, almost daring, in the attitude taken by E. Shrapnell Smith, the English authority, who boldly compares motor bus and trolley or tram car service on a business basis. In a paper read before the International Road Congress, at Brussells, Mr. Smith unearths statistics which fully justify his faith in the newer form of traction.

This faith he crystalizes in the statement of his belief that "the motor bus promoter, working in conjunction with the wood-paving contractor, will shortly occupy the commercial position which was enjoyed by the electric car builder and the permanent way contractor some ten and more years ago." Revealing ample confidence in the achievements of present practice he further asserts that "the commercial use of motor omnibuses has now reached the stage of development at which, for employment upon paved or other impervious road surfaces, all fundamental and practical difficulties of operation have disappeared."

"It has, in Great Britain, required a full decade of dearly-bought experience to justify this statement," he adds, and he further admits that "the problem of country services upon inferior macadamized roads whose metaling is loose and water-bound, still remains with us; its gradual simplification, by road engineers, can only be secured 'pari passu' in relation to the money that is placed at their disposal by the authorities concerned There can be no approach to perfection of internal communication by road, unless, and until, drainage and other constructional road features are systematically taken in hand."

The outstanding advantages of the motor bus, as compared with the street railway, are set down as follows: Low capital outlay involved; absence of necessity to obtain special powers from the legislature; mobility of rolling stock; independence of a central power station; non-interference with other traffic; no rails; no overhead equipment; low working costs now achieved.

The capital outlay involved in a motor bus installation will be, it is declared, from 35 to 50 per cent. of that required for intensive electric traction, meaning where six or more cars are owned per route mile. In smaller towns, where five or less cars per route mile are enough to cope with the traffic the ratio may fall as low as 25 per cent. The motor vehicles, however, readily will serve a much greater route length.

A concrete example in British experience is illustrated in the town of Eastbourne, a seaside resort and residential town on the south coast of England, with a fixed population of about 45,000 and a large holiday season influx lasting through four months of the year. In 1902 the Municipal Council rejected two schemes for electric tram car installation; one of these at a cost of $150,000, was to have equipped about 1.8 miles of track and provided seven cars, while the other, at a cost of $100,000, roughly speaking, was to have equipped 1¼ miles and provided four cars. Motor omnibuses were preferred, however, and a start was made in 1903, with the somewhat crude vehicles then obtainable. Four single-deck machines were obtained, and it is a commentary on their structural inefficiency that for the first year alone the tire costs amounted to as much as 8 cents per car mile.

To-day, after nearly eight years of running, the municipality owns a fleet of 20 double-decked vehicles, gives an adequate schedule with popular-priced fares, over 10.3 miles of route, and has a capital indebtedness of less than $66,000. It is making profits that will pay off the entire amount, less every allowance for maintenance of plant and equipment, in less than seven years.

In regard to the mobility of the rolling stock attention is directed to the fact that passengers are taken on and discharged at the curb, instead of in the roadway. But more important, from the traffic manager's point of view, is the point that no central station mishap can paralyze the service. Each road unit carries its own source of energy. Retiming and headway maintenance—when circulation blocks, due to street accidents, processions or the like, have caused derangements—are infinitely more easy of ready accomplishment with the motor bus, and this factor greatly assists the traffic supervisors in the vital matter of keeping faith with the public. It is safely permissible, in numerous cases, to sanction higher point-to-point speeds for the motor bus, by reason of the fact that that vehicle is free to move about the roads obliquely, and thereby to avoid the aggregate of irritating minor delays which are peculiar to tramcars, and which are mainly due to the setting down and picking up of other tramcars on the same track.

Contrasting the relative independence and self-reliance of the motor bus and the street car, with particular reference to early objections to the former, Mr. Smith says:

"Motor busses are less noisy than tram cars; lubricating oil is no longer wasted; cases of side-slip have been reduced by more than 90 per cent., as drivers have gained experience in the control of the vehicles; the number of fires has been negligible, and there has been no personal injury to a passenger in Great Britain—much less a death—from that cause; vibration, where it now occurs, is largely due to bad roads; third-party claims, in keeping with the experience of tram car undertakings after their first two years of working, are quite normal; the vehicles are no longer unreliable—in fact, it is probable, although exact data are not procurable, that tram cars now offer the less reliable method of transportation."

In advancing the proposition that low working costs are a present day realization, the author quotes from a recent report of the London Traffic Branch of the Board of Trade this significant statement:

"As rivals to tramways, motor omnibuses are likely to become more formidable than they have been hitherto, since they will be cheaper to work, and will travel longer distances than heretofore. Tramways have long since reached a stage at which there would appear to be little room for further improvement either in efficiency or cheapness. Motor omnibuses, on the other hand, are only beginning to show their capacity for dealing with traffic in large volume, and there is still an ample margin for improvement. As an instrument of locomotion the omnibus is in its infancy, whereas the tramway has come to maturity."

Speaking of earnings, the author refers to the experience of the London General Omnibus Co., which has failed to pay dividends for several years. This is not due to the poor paying quality of the motor bus business, however, as sometimes is made to appear, but to the fact that the company is forced to carry the unprofitable horse-drawn equipment which it still maintains. For the fifteen months ending last September, the company made roughly $289,000, but nearly $220,000 of this was diverted to the support of the horse equipment. As a matter of fact, the cost of working the motor equipment has improved during the past three years by 5½ cents per vehicle mile. The company now owns 1,000 buses and it will put the entire number into service during the present summer.

"In America," says Mr. Smith, "where 'hustle' is the order of the day, it is not even claimed that more than 14,000 passengers—many of them 'strap-hangers'—can be conveyed along the best electrically-equipped track per hour. A high performance is 8,000. In London, not infrequently, at the busiest hour of the day, as many as 9,000 passengers per hour are conveyed along certain central thoroughfares by motor bus; on the basis of 34-seated vehicles, but allowing an average of only 30 passengers per omnibus, this means five vehicles per minute, and corresponds to a mean interval on the road of (at 12 miles an hour) more than 210 feet. No traffic inconvenience is experienced at such times.

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With larger bodies, and the author sees no permanent reason why more than 34 seats should not be allowed in numerous European cities, or in London itself, the capacity for passenger traffic by means of motor buses may safely be put as high as 20,000 passengers an hour, in each direction, where there is a call for such concentration.

"It is, of course, an exceptional requirement, and one that can arise only in special cases, and during relatively short crush periods of traffic.

"The conclusion to be drawn, from the experience of the past four years more particularly in regard to the change of relation between the claims of electric tram cars and motor omnibuses upon municipalities and private capitalists, is this: six double-deck motor omnibuses are practically able to provide the same carrying accommodation as five average-sized tramcars, by reason of their greater point-to-point speed, and, even though it should be decided to wood-pave the streets upon which the motor omnibuses run, and to charge that capital expenditure to the motor bus account, less money will have to be found for a motor-omnibus project. In the event of any such decision to lay wood paving, which is ideal for all other forms of traffic, the benefit will extend to the whole width of the highway, and the cost will include adequate concrete fundations, without exceeding tramcar and track costs."

## NEW PLANT NEARING COMPLETION

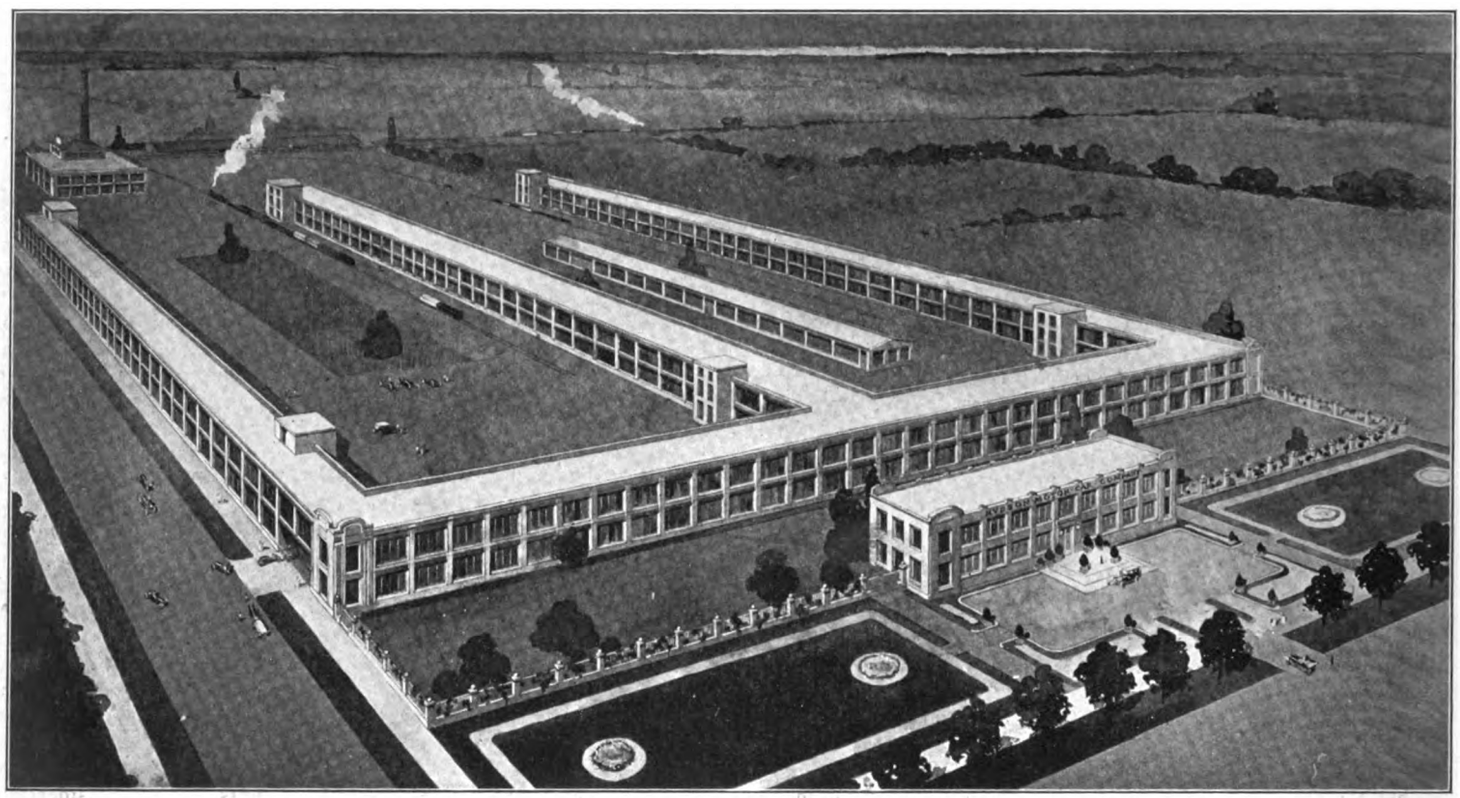
### Hudson's Huge Factory Almost Ready for Occupancy—Adequate Provisions for Expansion in the Future.

The new factory which the Hudson Motor Car Co. is building at Detroit, Mich., now is nearing completion. While the previously published dimensions gave a fair indication of the size of the project, the accompanying protograph conveys a more complete idea of the magnitude of the structure. Erected in a remarkably short time at a cost of $500,000, the new factory comprises in addition to the main building, a testing building, shipping building, power house and office building.

These buildings are all of reinforced concrete and are strictly fireproof. They have been built so that two additional stories may be added at any time. The company also has an adjoining tract of land on which a duplicate of the structure now nearing completion can be built.

The new factory covers 122,352 square feet, or 2.8 acres. The total floor space amounts to 223,500 square feet, or 5.1 acres. Twenty acres are devoted to the site and surroundings of the new factory. The main building will be over 600 feet long. It will have three wings.

Directly in front of the factory building proper is the office building. This will contain the executive offices, sales and show rooms, model rooms and features of the most modern factories. This is of white concrete with a court in front.



BIRDSEYE VIEW SHOWING THE NEW FACTORY OF THE HUDSON MOTOR CAR CO.

### Scrubs and Clarifies Exhaust Smoke.

Municipal boards have passed anti-smoke ordinances and inventors have struggled with the problem of noise suppression in muffler construction, but it remained for the French constructor Dubreuil to originate a "smoke-filter" and muffler combined. This device, which fulfils much the same function as the ordinary muffler, with the added advantage that it clarifies the smoky exhaust as it passes through, is formed of a series of compartments connected in series and leading to the outlet pipe at the rear of the car. The compartments are in the form of rectangular boxes, of 8 by 10 by 2 inches dimensions, and are packed with a mixture of porous charcoal and amianthus, or finely divided asbestos or mineral wool fibers. As the exhaust passes through these filter packs it is scrubbed and rendered entirely colorless.

### Glass for Float Chamber Walls.

Whatever may be said for or against the use of the glass float chamber in carburetter construction, it has one distinct advantage. Any impurities in the fuel may be observed without dismounting any portion of the apparatus, while the presence of water, which so often causes mysterious stoppages, at once becomes apparent.

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## MOTOR TRUCK AMONG ARMY MULES

**Chickamauga Training Camp Gives White Truck a Rigorous Test—Its Service Impresses Military Authorities.**

While the standing armies of Europe have been installing automobile trucks in the service of the commissary departments, and France and Germany are giving considerable subsidies to manufacturers of such trucks, little has been heard regarding the activities of the United States army in this regard. At the recent training camp at Chickamauga Park, Tenn., however, a White motor truck was placed in service, transporting provisions from Chattanooga to Chickamauga, a distance of some eleven miles, and gave a demonstration which is not likely to go to waste. Major G. G. Bailey, quartermaster of the Department of the Gulf, conducted the experiment, which proved so successful that it is the opinion of army officers that in the near future every army post in the country will be equipped with similar trucks.

Owing to the continuous rains, the road conditions during much of the time were unfavorable and yet the truck made daily trips to Chattanooga, and on many occasions two and three trips. The average time for the trip of 22 miles was two and a quarter hours—the best average by army mule teams, seven and a half hours. It has been said that an army advances on its stomach, showing how important to an army is the commissary department, and what advantage the great speed shown by the White motor truck offers the quartermaster who has one of them at his disposal.

In fact, so satisfactory to the army officers was the operation of the truck that they stated that it easily replaced six teams of four mules to the team. The up-keep expense, of course, of the motor truck as compared with 24 mules was very much in its favor. After the demonstration of the truck had progressed to a certain point where it was said by many of the army officers to exceed all expectations, various other experiments were tried.

For instance, during the army maneuvers the truck was used to distribute ammunition to the gray army. This work was started about nine o'clock in the morning and completed at twelve, a demonstration of speed never before accomplished in the army maneuvers, it having been stated by the officer in charge that six to eight mule teams, at the greatest possible speed, would have required until three or four o'clock in the afternoon. The advantage of the speed in actual warfare is almost beyond calculation, often meaning the saving of a corps or the entire army from defeat.




THE OLD AND THE NEW IN ARMY SERVICE—THE MULE TEAMS AND THE WHITE TRUCK

**San Antonio to Try Motor Fire Engine.**

San Antonio, Tex., is the first city of the Lone Star State to give motor-propelled fire engines a thorough try-out. The first instalment of them will cost $21,000 and will consist of two combination motor fire engines and hose wagons and a car for the chief, which will also carry a chemical engine. Every machine is guaranteed to have a speed of sixty miles an hour and to throw 600 gallons of water per minute. The same motors are used in propelling the car and working the pump. In addition to carrying seven men each, the fire engine will carry 1,000 feet of 2½-inch hose.

## REDUCING TRANSMISSION NOISES

**Analytical Methods by Which British Expert Tackles the Problem—Points Developed by Observation.**

Rapid strides have been made within recent years in reducing transmission noises. At the same time it is admitted among thinking automobile men that there is room for much further improvement. In this connection a number of points brought to light by a British engineer are pertinent, especially where they touch upon elements of the problem which have been little discussed hitherto.

As he correctly indicates, there are no less than 11 points to be considered in studying transmission gear action with a view to reducing its noise, namely:

1. The mathematical correctness of the tooth cutting.
2. Correctness of spacing, i. e., shaft centers.
3. Effect of looseness in the bearings.
4. Effect of solid vs. "shell" type wheels.
5. Effect of fine vs. coarse pitch teeth.
6. Effect of distortion due to hardening.
7. Effect of quality of metal used.
8. Effect of speed—in other words, size of wheels.
9. Effect of length and stiffness of shafts.
10. Effect of shape of gear box and material of which it is made.
11. Effect of helical or compound pitch gears.

And he further indicates "a very curious but prominent fact in connection with gear boxes as a whole," namely that "while some are so objectionable in the way of

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noise, as almost to merit the term silent, others exactly similar in design and workmanship are just the reverse.

"Not only is this the case," he adds, "but a pair of similar boxes which are noisy can sometimes be rendered quiet—in the ordinary acceptance of the term—by the simple exchange of one wheel from each to the other. Why should this be? One would think that with correctly cut teeth, correct workmanship in regard to shaft centers, and entire absence of any slackness or play in bearings we ought to have silently running gears. Yet we do not get them; at least, we cannot be certain of getting them. There is an absence of uniformity in results that is most puzzling. Nearly every maker of repute is wrestling with this problem, and it would doubtless surprise most people if they could only know the amount of time and money that has been, and is still being, spent upon it."

Dismissing the subject of gear design and construction after a somewhat lengthy treatment, which plainly reveals that the English constructors are as yet unaware of the advantages to be derived from the application of the grinding wheel after hardening, the writer advances to some rather interesting and suggestive conclusions. In regard to general construction, he observes:

"It seems to be generally accepted that solid wheels are best as being more 'dead' to vibration than the other type. Certainly if we take up a loose wheel of each kind and strike it after the manner of a gong the shell type gives more resonance. But this is one of the points on which it would be most useful to have particulars of actual results, as we believe there are examples of shell type gears which are comparatively quiet, whilst, on the other hand, the writer has had experience of solid ones which have been very noisy, and the question we have to solve is how far these results are attributable to the shape of the wheels only, and how far to other conditions? That the shell type of wheel is considered to be an offender is demonstrated by the fact that one frequently finds the interiors filled up with a disc of lead or red fiber, with the obvious purpose of deadening the vibration.

"An interesting suggestion was advanced to the writer a short time ago as to the possibility of molecular, and not merely mechanical, vibration being responsible for gear noise. We know, of course, what a noise can be emitted by the iron core of a solenoid under the influence of an alternating current, and the suggestion was that possibly some similar action is set up by stresses on gears and that noise results. . . . Personally, I should think mechanical vibration is enough to account for noise, and this brings us to an important consid-sideration.

"In the case of a twenty-tooth pinion at 1,500 r.p.m., this means that 30,000 little blows are being dealt by it in every minute to the teeth of the wheel into which it gears. It is true the strength of the impact is very small indeed, but if 'a multitude of little things is equal to a very big thing,' it is easy to understand the great aggregate result. Now, if we substitute for the twenty-tooth a fine pitch wheel with forty teeth, will the resulting noise due to 60,000 lighter blows be greater in proportion? But would the blows be lighter? It is clear that the working stress, i. e., the pressure of the driving upon the driven wheel measured at the pitch line, must be the same in both cases, as we have only changed one factor, the number of teeth in a wheel of given size; but the fact is that the pressure is not really continuous, but consists in the one case of 30,000 little pushes. In the second case there are 60,000 pushes in the same period of time, so they must be each of half the magnitude, or, in other words, the blows struck by the finer pitch teeth are individually only half as hard as those struck by the coarse pitch teeth.

"This being conceded, we should expect less noise from the fine pitch, yet everyone practically has adopted coarser pitches than used to obtain a few years ago, mainly, I believe, because in actual work the latter prove quieter and less subject to damage in gear changing.

"Except as regards its effect during the hardening process we should not expect one steel to be more or less noisy than another, i. e., if both have to be hardened in the usual way. But there is another aspect which should be mentioned, viz., that an attempt has been made to produce a specially treated steel that can be made hard and tough whilst it is in the blank, and yet not too hard for cutting. . . .

"We have only to listen to any car accelerating on one of its lower gears to admit that as the speed of the gear wheels increases so does the noise. We should infer, therefore, that slow speed means less noise. But as boxes are now designed there seems little hope of improvement in this direction, and when we leave the beaten path of convention we are at once accused of producing 'freaks!' It has often occurred to the writer that something might be possible by the adoption of a worm reduction as the first step in a gear box, whereby we might at once bring down engine revolutions to something like a sixth or an eighth of the speed. This would certainly give us slow speed gears which would probably be more silent, not only in running but in changing gears. Also it would permit of the use of a pair of even sized bevels for the live axle drive. It might indeed make possible a really practicable combination of change gears with back axle. Readers and makers who have time at their disposal may find it profitable to follow up this suggestion.

"It is generally conceded that shafts should be as short and stiff as possible, and that a comparison of a modern up-to-date box with one of a few years ago will show what a change has occurred in this respect. And there can be no doubt it is a most important point. Second speed gears are nearly always noisier than first speed, and it is fair to conclude that this is mainly because they come more in the middle of the shafts, and furthest away from support. This effect is often greatly aided and abetted by the looseness of the sliding gears on their shafts, together with, as already mentioned, looseness of the 'spigot' end in its bush. Sliding gears must of necessity be an easy fit, or gear changing would be troublesome, but very great care should be taken to avoid making them the least bit easier than is absolutely necessary.

"We have heard two theories in regard to this point—firstly, that the more truly cylindrical a gear box is made the quieter it will be; and, secondly, that cast iron boxes are quieter than those made of aluminum. It would be useful to have the results of actual experience on these points. The difficulty is to get true diagnosis, e. g., if a cylindrical box has been made and found quieter than more conventional shapes, is the quietness due to the shape or to some other factor such as more or less rigid connection to the frame, or perhaps something in the gears themselves or their shafts? Is a box with long side arms reaching out and fixed to the sides of the main frame more noisy than one with short arms—or none at all—fixed to a sub frame or to special bearers across the main frame?

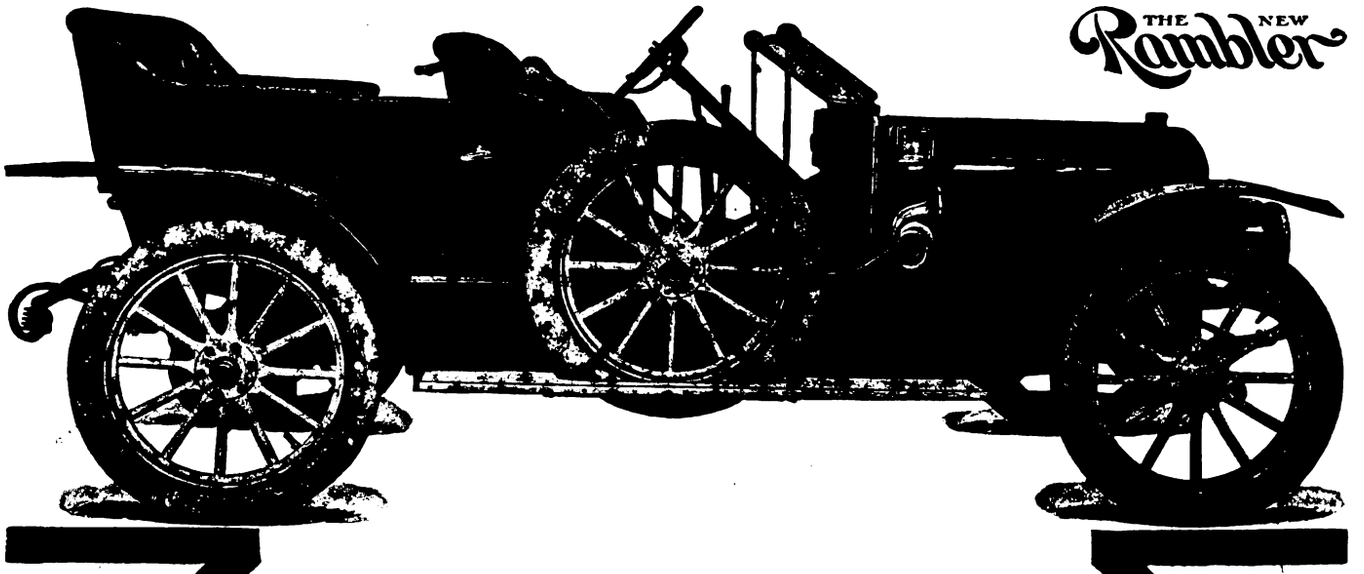
"We have seen helical tooth gears used for the constant mesh wheels, but, of course, for sliding gears they are impossible. It is not easy to say, therefore, what the effect would be if all the gears were made constant mesh and changing done by means of dogs. It is reasonable to suppose that if an experiment in this direction could be tried, with double helical gears well supported with bearings close up to each pair, a favorable result might be expected."

### Where Tire Cost Comes High, and Why.

Automobile travel and rubber tires come high in Jamaica. The owner of an automobile livery there charges at the rate of 25 cents per mile for the use of his cars, figuring tire cost at the rate of 12 cents per mile. This latter sum is due largely to the manner in which the roads are repaired. They are macadamized, but when repairs are made, loose stone is thrown on the highways and left there without being rolled in. The result is, of course, exceedingly destructive to rubber tires of all sorts.

"The A B C of Electricity." Price 50c The Motor World Publishing Co., 154 Nassau Street, New York City.

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THE Fifty-four Toy Tonneau is a mid-season New Rambler model. It is an evolution from the Close Coupled model, designed for the same demand, but a little more roomy.

Its advantages are low seats, two inches longer than usual from front to back. Seat cushions tilted and rakish seat-back to correspond. Body smaller and lighter than the touring car but tonneau roomy enough for three people of average size. Three inches more leg room in front than touring car. Rakish steering column.

With five lamps, Prest-o-Lite tank or generator, magneto and storage battery, horn and tools, $2,250. Top with side curtains, $100. Wind Shield $40. Spare Wheel $85.

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# Reliance SPARK PLUGS

## Spark in Water



It is an annoying fact, but nevertheless perfectly true, that the finest motor in the world will cause trouble if you have an inferior spark-plug.

Your only protection against this kind of trouble is to ask for the Reliance Spark Plugs **and see that you get them.**

Soot or carbon on the **Reliance** does not affect its efficiency in the slightest degree. Do you know of any other spark plug of which this holds true?

No foreign matter can make the Reliance short-circuit. Try it in a glass of water—that's the supreme test. A single drop will stop all other plugs from sparking. The "Reliance" completely submerged, keeps right along, delivering a full-sized hot spark, giving the full intensity of the current.

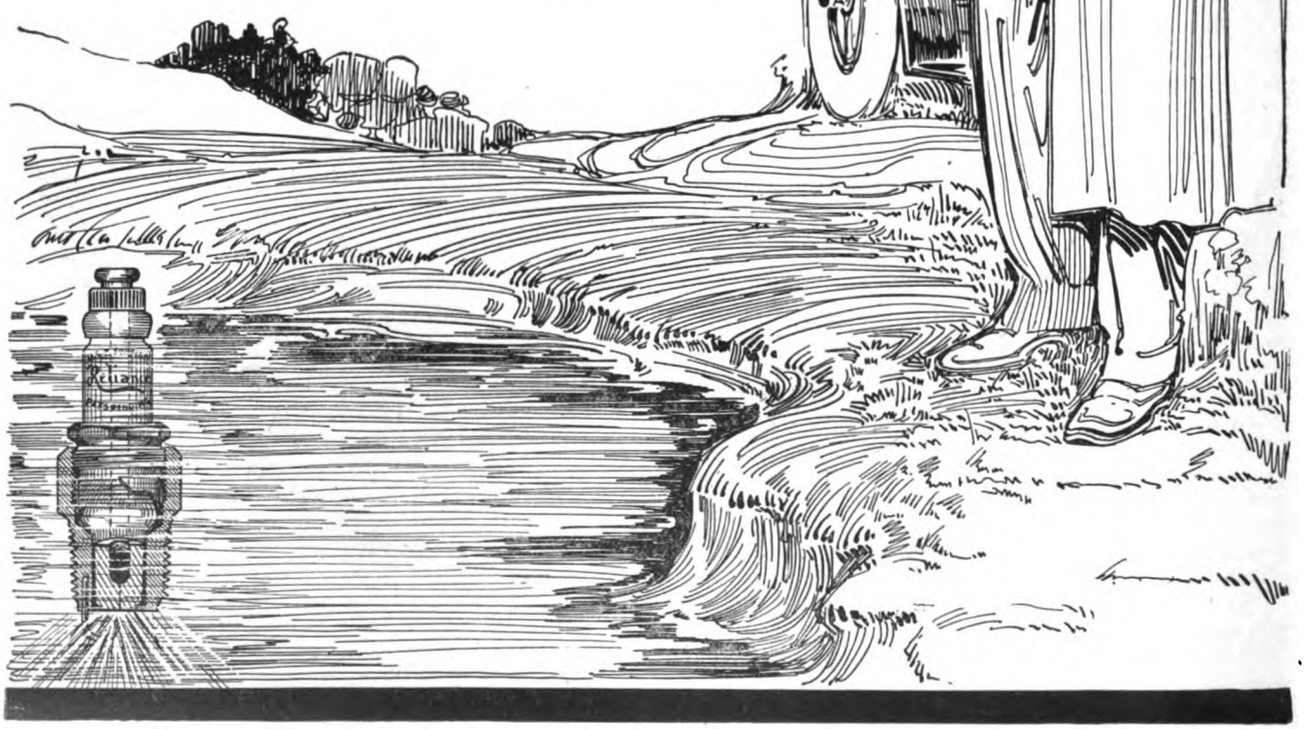
**Our immense output enables us to sell the Reliance for $1.00**

If your dealer does not handle it don't accept an inferior plug, for it surely means trouble sooner or later. We will send as many as you want prepaid on receipt of the retail price. Our booklet, which we send on request, contains information on spark plugs that every owner of an automobile or motor boat should know. Send for a copy today, and one of our sensational electrical novelties.

**JEFFERY-DEWITT CO.**

**Manufacturers of Reliable Spark Plugs**

**65 Butler Avenue** **DETROIT, MICH.**




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## FEEDING OIL WITH THE GASOLENE

**Duryea Reverts to the Subject and Emphasizes its Advantages—The Proportions Which he Recommends.**

There is unquestionable logic in the theory that a gasolene engine requires lubrication in proportion both to its speed and its power output; and this despite the fact that most lubricating systems now in use, even those commonly counted as being most successful, are governed entirely in response to the speed. As was pointed out in these columns recently, several foreign manufacturers have introduced oil-feed control devices which are worked by the movement of the throttle.

Referring to such systems, Charles E. Duryea, the veteran inventor and automobile builder, promptly indicates that much the same advantages accrue to the feeding of a portion of the oil supply through the medium of the fuel itself. In commending the principle involved Mr. Duryea says:

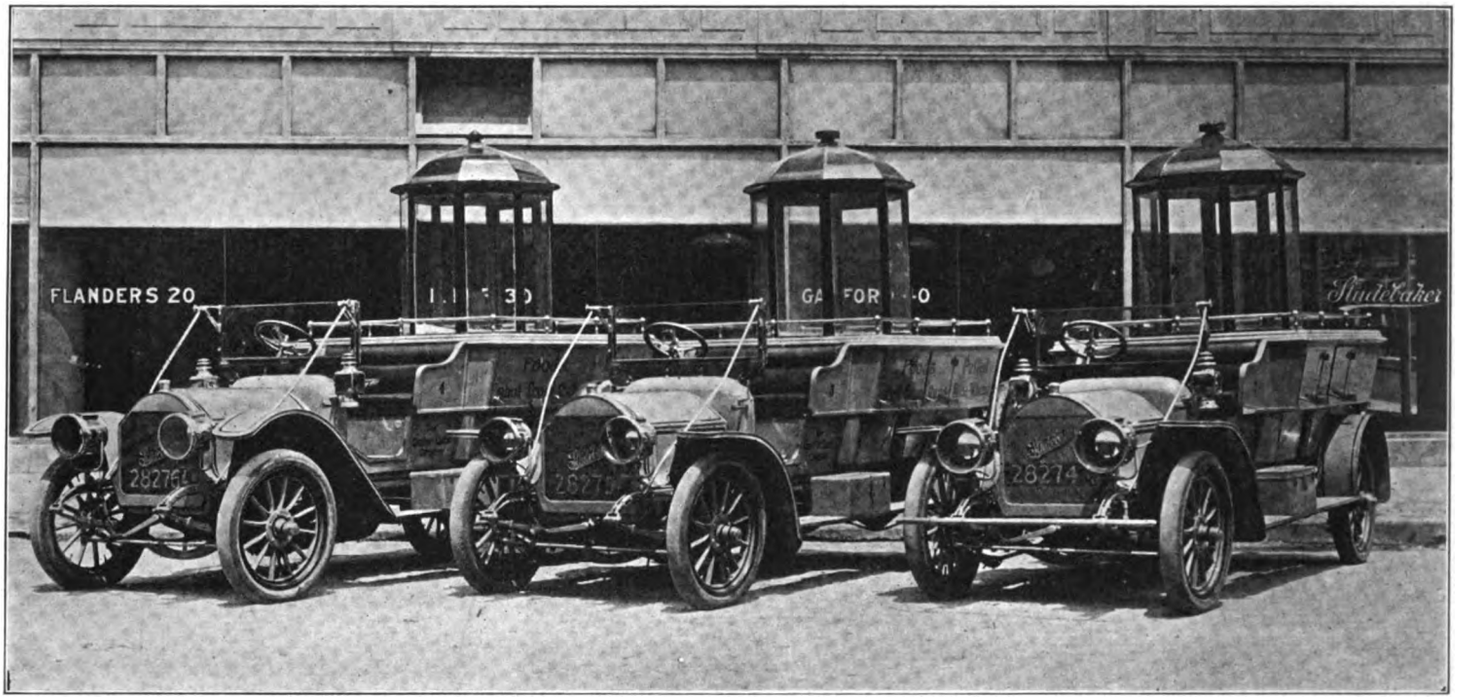
"A very little oil will suffice if the speed and work done are both small, but when either the speed or the power becomes great then the engine must have oil. The splash system meets this need pretty well, with respect to speed, so long as there is a constant level to splash from.

"The ideal method, however, seems to be to feed the oil with the fuel. More fuel, more oil. Power and speed both require fuel and this automatically carries in the requisite quantity of oil. It cannot be beaten for two-cycle engines.

"I have been using it in my Buggyaut engines for about three years and use a pint of oil to five gallons of fuel; a proportion of one to forty. This amount of oil does not smoke nor carbonize the plugs nor cylinders enough to mention. Many people are afraid to try it, but it has been proven successful beyond any doubt. On four cycle engines half the amount of oil with the fuel will allow much less to be fed through the usual oiling devices and give greater power and sweetness of running."

**The Shooting of Food on Motor Cars.**

Although the salient features of the three unique advertising automobiles used by the Quaker Oats Co. to distribute sample packages of its cereals in the rural districts, and shown in the accompanying illustration, have been described in the Motor World, the mechanical features of the device by which food is "shot from a gun" are not so generally known. The arrangement consists of a small blower connected with the fly-wheel and controlled by the operator through a friction clutch. The blower pipe is connected to the bottom of a conical bin into which the rice falls after being blown to the top of the dome, producing a startling effect. That the cars—Studebaker-Garfords—with their unique equipment attract a good deal of attention in the different parts of the country, goes without saying, and the manufacturers of the breakfast food are well satisfied with the advertising value of the cars. To each of them a certain territory has been assigned—the West, the East and the South being covered thoroughly.




TRIO OF STUDEBAKER-GARFORD CARS IN WHICH "FOOD IS SHOT FROM A GUN"

## IMPROVING CHAUFFEURS' BREED

**Massachusetts Believes it is Performing that Service—The Methods Employed and the Results Obtained.**

It is becoming steadily more difficult for a person to qualify as a chauffeur in Massachusetts, and under the present requirements it is almost impossible for an applicant to secure a license unless he is thoroughly capable, declares the Boston Transcript. No drastic change has been made in the examination, but the standard has been raised little by little, with the result that only about two-thirds of the applicants are now receiving licenses. Two years ago about three-quarters of the applicants were licensed and three years ago almost seven-eighths. During the past three years the number of persons applying for examination has increased rapidly.

Under the system now in effect less attention is given the written examination than the road test. Formerly each applicant had to answer a list of about twenty-five questions. Now there are only about twelve questions on the paper for the written examination. Nine of these usually deal with the automobile laws and rules of the road and the other three pertain to the mechanical control and proper operation of a motor vehicle. The same examination paper is not used right along, but there is a series of papers, and each week a different paper is used.

Under the former practice some applicants for chauffeurs licenses learned the

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answers by rote and consequently the written examination was of little use. Under the new plan an applicant must have a good knowledge of the law and of the mechanism and control of a car, for he cannot tell what set of questions will be put before him. Care is taken in case an applicant comes up for a second or third examination that he gets a different set of questions each time.

The change in the written examination was made not only to prevent incompetent persons from passing, but also to enable competent operators to secure licenses. In many cases under the former plan, thoroughly competent mechanics and operators, but of little general education, were unable to pass the test on account of the numerous questions. It was considered unfair to them to refuse licenses, when they showed that, although unable to answer correctly a question about the rules of the road or the exact requirement of the law, when on the road they were thoroughly familiar with the requirements. With the shortening of the written examination its importance in the total examination was diminished.

The percentage and standard of the road test have, however, been raised. A chauffeur, having first taken the written examination, is required to present himself with a car for the road test. Regular tests are made in Boston and nine other cities, and special tests, if necessary, are made in other places. The car brought by the chauffeur is first examined by one of the corps of six examiners of the Highway Commission. If it lacks adequate brakes, muffler, horn or other necessary equipment, or seems in any way to be unfit for operation or a menace to public safety, the applicant is refused a test. If, in the opinion of the examiner, the car is in reasonably good condition and safe, the road test is begun, the examiner accompanying the applicant and directing him what to do, at the same time questioning him to bring out his knowledge of the general principles of operations, rules of the road and knowledge of mechanical detail.

In Boston, where the examination of chauffeurs is in charge of F. L. Austin, chief examiner of the Highway Commission, the test usually begins by taking the applicant to some little used street and requiring him to show whether he knows how to handle the car, to steer, operate the brakes and clutch, start, stop and back up. Some applicants show their incompetence in fifty feet. In other cases the examination includes a trip of three or four miles. The test at first ordinarily comprises a trip down and up a hill, which gives the operator a chance to show his knowledge of the brakes and the change gear systems.

Having demonstrated a knowledge of the elemental features of operation, the applicant is taken to a street where is a little more traffic, and where at corners or elsewhere he is likely to encounter street cars and pedestrians. There the examiner learns whether the candidate knows what to do when suddenly confronted with the necessity of stopping his car to avoid a collision, or turning out to avoid a pedestrian. Many fail in this test by an absence of self-possession when confronted with a situation where quick action is necessary, and the examiners sometimes have to take possession of the car in order to prevent trouble. Some applicants seem not to know what the brake is for when they get into a tight place.

Having satisfied the examiner in the preliminary trials, the operator is then usually taken into a congested street, such as Boylston, Tremont, Washington or Summer. There he must display not only thorough familiarity with the operation and control of his car, but also complete knowledge of the law requiring him to signal with the horn, slow down when approaching a crossing, street car or pedestrian, stop when necessary. Furthermore he must demonstrate to the examiner's satisfaction familiarity with the Boston traffic rules, as to stopping at the curb, taking corners and passing other vehicles. While the applicant is taking this test he usually is questioned by the examiner as to his experience in driving, his knowledge of the mechanism, and as to what he would do under certain circumstances.

The road test is of varying length accordingly as the examiner feels it is necessary to try out the applicant. The primary consideration always kept in mind by the examiner is public safety, and in every requirement of the examination the applicant is tested with the matter of safety in mind. His judgment is also an important matter that is considered. The examiner, of course, cannot determine altogether the man's character. An entirely competent chauffeur, well posted on the law and on the operation of his car, may become a reckless driver. But in general it is a safe assertion that a chauffeur who receives a license under the present requirements knows how he ought to drive under all circumstances, and what he ought to do in almost every situation that is likely to arise.

If an applicant for a chauffeur's license fails to pass the examination on the first test he cannot take it again until two weeks have elapsed. If he fails on the second examination he must wait a month before coming up a third time, and if he fails the third time he cannot be examined a fourth time for a period of three months. If, however, an applicant fails on the written part of the examination but passes the road test, he can take another written examination without undue delay. Licenses are sometimes restricted to small cars or to a certain type of car such as a steam runabout, an applicant showing that he can operate a steamer being passed without being asked to show special knowledge of a gasolene car. Operators of commercial vehicles are also restricted, an applicant who is employed to drive an electric truck not being permitted to handle a gasolene truck and vice versa.

So far this year approximately 3,500 examinations have been given and about 33⅓ per cent. of the applicants have failed on the first test. In the year ending Nov. 30, 1909, 4,629 examinations were given and 31.61 per cent. failed on the initial test. In 1908 a total of 3,290 examinations were given and 27.38 per cent. of the applicants failed on the first test. In 1907 about 12 per cent. failed on the first examination. In 1908, 16.15 per cent. failed on the first road test, and in 1909, 21.68 per cent. These figures indicate the result of raising the standard of the examination, and show that the State is steadily increasing its demands upon persons who wish to enter the occupation of driving automobiles for hire.

### How Edge Would Relieve New Jersey.

Walter E. Edge, the Assemblyman who passed a reciprocity bill through the lower house of the New Jersey legislature only to have it killed by "Joe" Frelinghuysen in the Senate, has a new and rather fanciful scheme to settle all trouble and avoid the reprisals that have grown out of New Jersey's "hold-up" attitude. He would have appointed an active commission of two or three members of the legislatures of the States of New Jersey, New York, Pennsylvania, Massachusetts and Connecticut, which would meet before the legislative session and prepare a bill that would receive the recommendation of such a commission to their separate States with the hope that such legislation would be adopted by each.

### Arrested for Posting Road Signs.

Charles E. Stagg, a Stratford (Conn.) sheriff, "got his name in the papers" last week by arresting a man employed by the Automobile Club of America, who was usefully tacking up road signs at the turns at crossroads and doubtful corners. Later the august Board of Selectmen of the one-horse village graciously granted permission, and the sheriff became very obliging and even assisted the sign poster in his work in an effort to undo the "misunderstanding," as it was termed.

### How Evansville Evades State Law.

Although the state automobile law says that "no city, town or municipality shall require the payment of any license on any motor vehicle," Evansville, Ind., has been mulcting its owners of automobiles $3 for a local license, and last week when Robert Hochner tested the ordinance it was sustained by a local judge, who held that the $3 fee was a "special tax" and not a license. Hochner promptly filed an appeal against the decision.

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## RECENT PATENTS.

963,055. Travel Recorder for Automobiles and Similar Vehicles. Charles A. Miller, Hazleton, Pa. Filed Nov. 26, 1907. Serial No. 403,943.

1. The combination with a casing composed of two interlocking parts, a clock mechanism having a rotary support for a chart or record sheet which is rotated thereby, contained in one part, a stylus, a spring maintaining the same in engagement with the chart, and a pendulous support for the stylus arranged to vibrate in a plane parallel to the record sheet, contained in the other part of the casing, these devices being arranged so that the stylus will be oscillated transversely to the normal line of travel of the chart by the vibrations of the casing incident to the ordinary running of a vehicle to which it may be attached.

963,098. Canopy Top for Vehicles. Charles E. Walters, Detroit, Mich., assignor to Michigan Steel Boat Company, Detroit, Mich., a Corporation of Michigan. Filed March 24, 1910. Serial No. 551,351.

1. In a canopy top for vehicles, the combination with a flaring bow, of an inclined brace member detachably engaging the bearing on the flaring portion of the bow, and an offset bearing on the lower portion of the bow for engagement with said brace in collapsed position.

963,187. Carburetter. Frederick W. Tuerk, Chicago, Ill., assignor to The Tuerk Novelty Company, Chicago, Ill., a Corporation of of South Dakota. Filed May 15, 1909. Serial No. 596,162.

1. The combination with a float feed chamber connected with a source of hydrocarbon fluid supply, of a mixing chamber regulably connected therewith through a suitable port, a cup in the mixing chamber to receive the discharge from the float feed chamber, and a mixing cage supported below the cup comprising a plurality of wires spherically curved upon which the cup discharges through apertures in its bottom.

963,557. Drive Mechanism. Louis A. Hill, Washington, D. C. Filed Nov. 19, 1909. Serial No. 528,947.

1. In a motor car, the combination of a hollow supporting axle, a shaft journaled therein, casings extending upwardly from the ends of said axle and provided above the latter with journal bearings and hollow stub axles, driving wheels on said stub axles, spindles journaled in said bearings and extending through said stub axles, means for connecting said spindles to the driving wheels, and actuating connections between said shaft and spindles, substantially as described.

963,564. Sparking Plug for Internal Combustion Engines. William H. Horner, Williams Bridge, N. Y. Filed Nov. 30, 1909. Serial No. 530,539.

1. A device of the class described, comprising a tubular plug, one end of which is closed and the other open and provided with a contact device, a magnet at one side of said plug and the core of which passes thereinto, said magnet and said core being insulated from said tube, a U-shaped spring placed in said tube and insulated therefrom, one arm of said spring being secured to the core of the magnet and the other arm being provided with a contact device.

963,609. Motor Vehicle. George William Mascord, London England. Filed Feb. 5, 1910. Serial No. 542,285.

In a motor vehicle, a combined driving and steering mechanism comprising a stub axle removably connected to the hub of a wheel, said stub axle having bearings thereon, said bearings being inclosed by a cylindrical member having a substantially conical extension, said extension being inclosed by said hub, a supporting member for the body of the vehicle, an end of said supporting member being inclosed by said extension and vertically journaled thereto, a ring encircling said cylindrical member, said ring constituting part of a universal joint, said universal joint being secured against rotation on said stub axle, a driving shaft secured to the universal joint, and an arm on said extension for steering the wheel.


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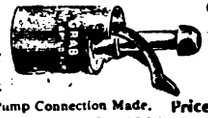
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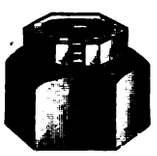
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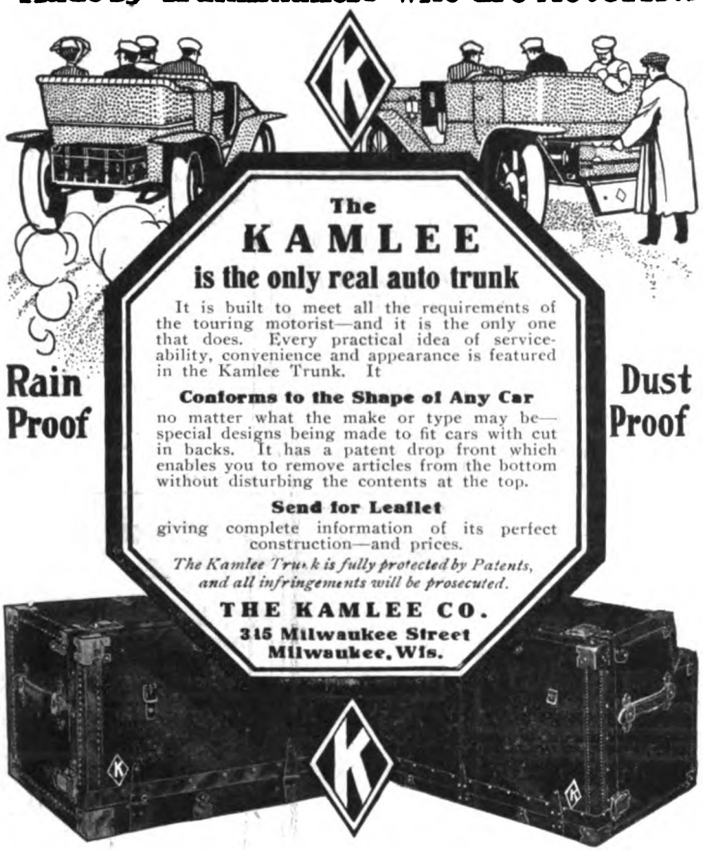
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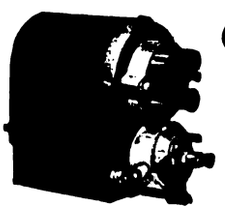
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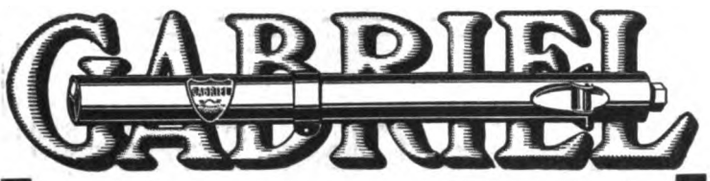
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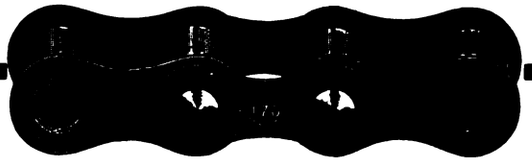
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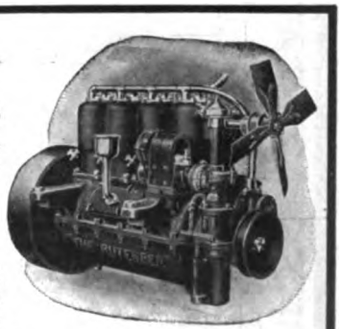
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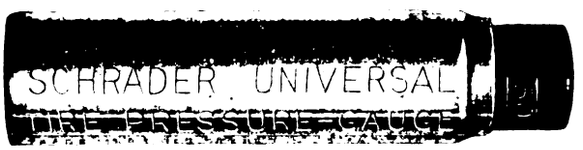
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S. P. O. captured event 5—pursuit race.

In the match race between De Palma and Robertson, in the Fiat and Simplex, Robertson, with his Bosch-equipped Simplex, won, although the Bosch-equipped Fiat was not far behind.

National won event 7, another pursuit race.

Fiat won the 5 mile free-for-all.

S. P. O. won the 1 hour race, the big race of the day, with Ranier second; S. P. O. third; Palmer-Singer fourth; Stearns fifth; Marion seventh; Fiat eighth; all Bosch-equipped. Winning S. P. O. made a new Brighton Beach record of 59 miles for the hour.

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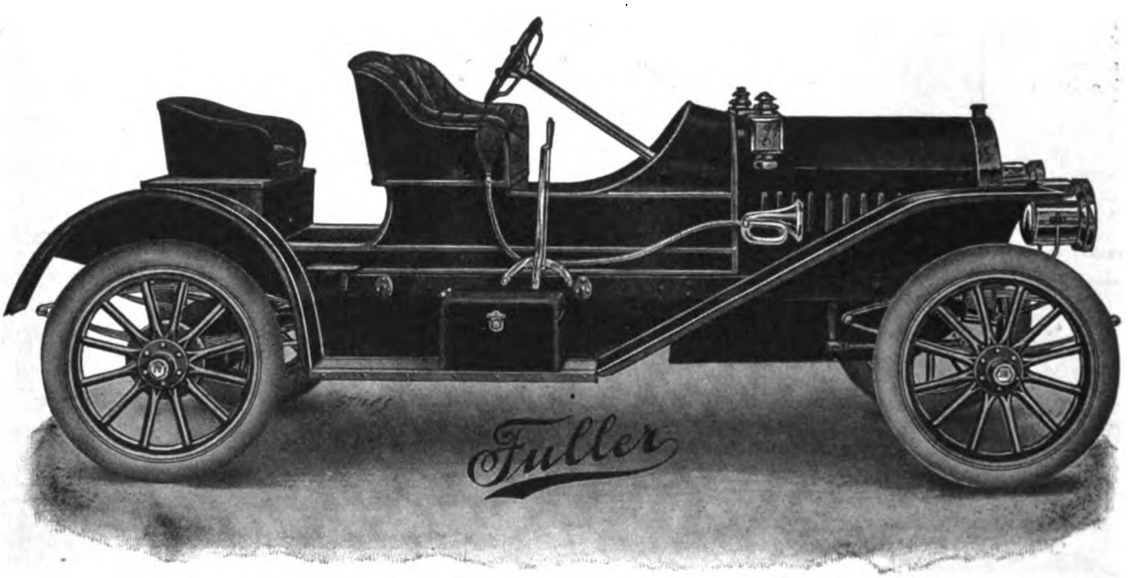
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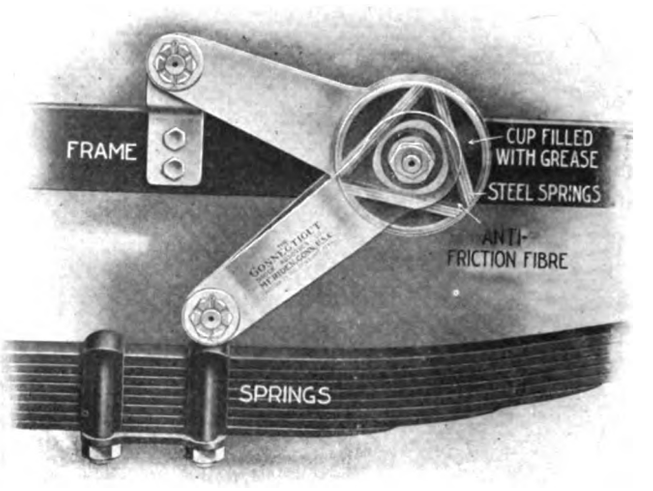
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**LIKE RIDING IN A PULLMAN CAR AS COMPARED WITH A DAY COACH**

The CONNECTICUT has many distinct advantages—features not found in the old-style absorber. If you would know real motoring comfort—get CONNECTICUT Shock Absorbers today.

It is necessary to have the absorbers properly adjusted to car when they are applied, and in order to secure proper distance between arms they are provided with a serrated disc whereby the neutral position can be obtained when fitting them to car. After this adjustment is once made the CONNECTICUT absorbers require no further attention.

*Why not write us today for further information!*

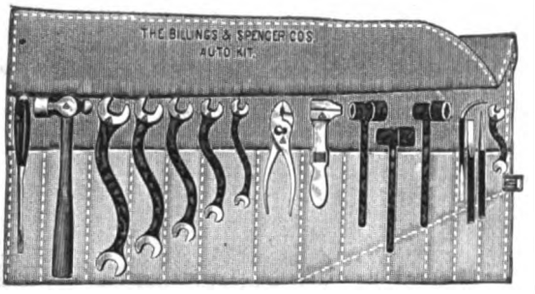



UNITED STANDARD EQUIPMENT MANUFACTURERS WE PROTECT THE DEALER THE OWNER AND THE

**Connecticut Shock Absorber Dept.**
**United Manufacturers**
**250 West 54th Street, New York**

## The B & S Tool Kit

Every tool a steel drop-forging, a handy and popular selection. No better guarantee than the fact that each tool is made by




New Catalog

**THE BILLINGS & SPENCER CO., Hartford, Conn.**

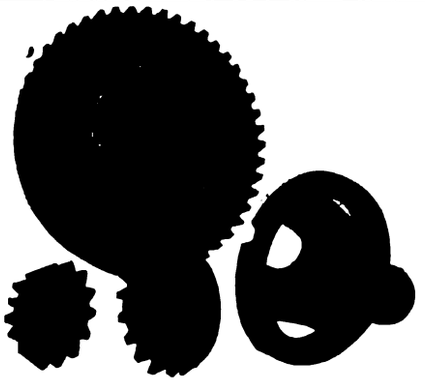
# FORGINGS

We make all kinds of forgings—make them just the way you want them—rough, rough-turned or machined to blue prints—make and deliver them quickly.

Heat treating furnaces under the direction of skilled and competent men.

Send us your blue prints for quotations.

**THE WRIGHT WRENCH & FORGING CO.**
**1417 Barth Street Canton, O.**



"VULCAN" Gears eliminate noise and all other gear troubles

# VULCAN GEAR WORKS

**Detroit, Michigan**

## Manufacturers of CUT GEARS

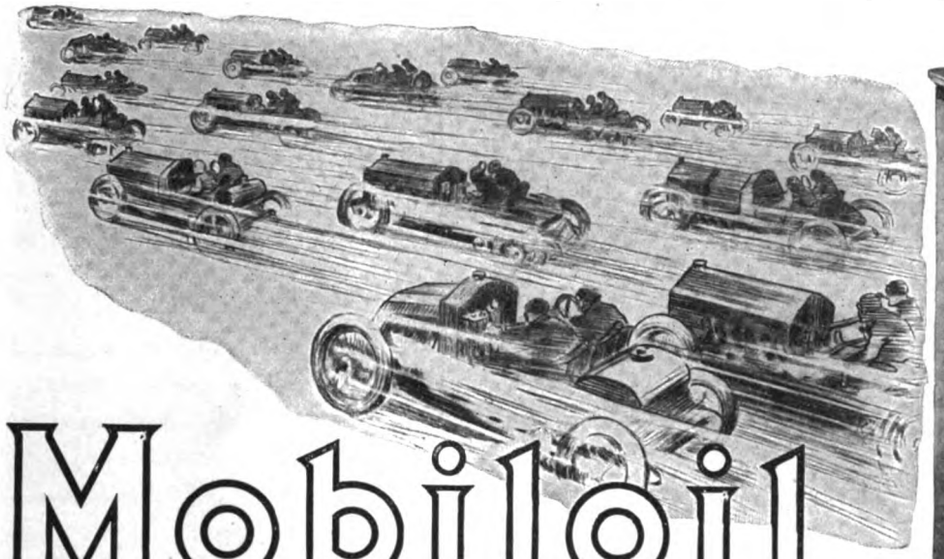
**of All Kinds for Mechanical Purposes**

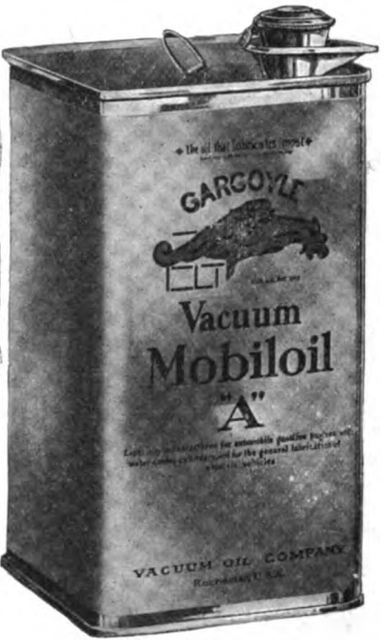
## AUTOMOBILE GEARS A SPECIALTY

**Send Drawings for Estimate**


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# The Real Power Behind the Car





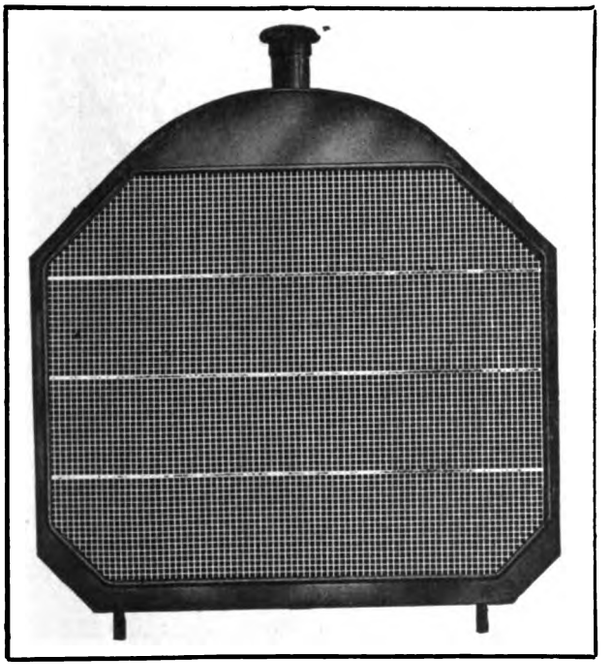

Mobiloil

*the oil that lubricates most*

## For Every Type of Motor

Vacuum Oil Company
Rochester, U.S.A.

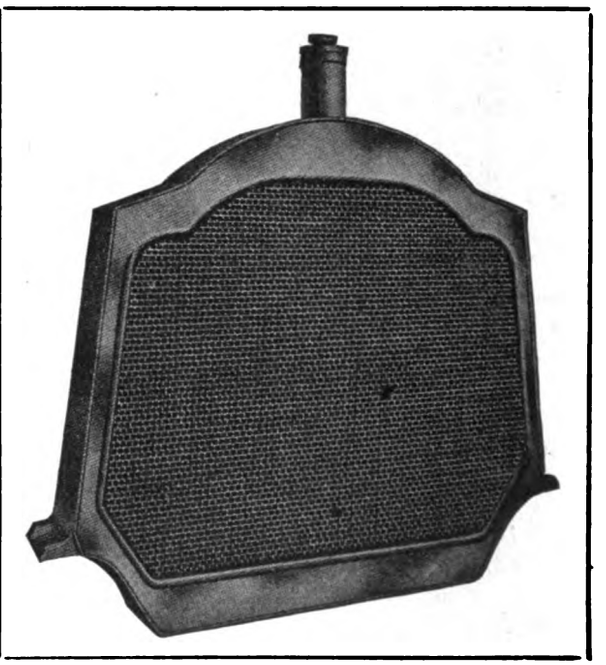
# FEDDERS REAL SQUARE TUBE RADIATORS



No square tube "effect" or imitation, but made of individual square tubes. Of course the real square tube is better, that's why the others imitate it in appearance. They can't make the real article at the price.

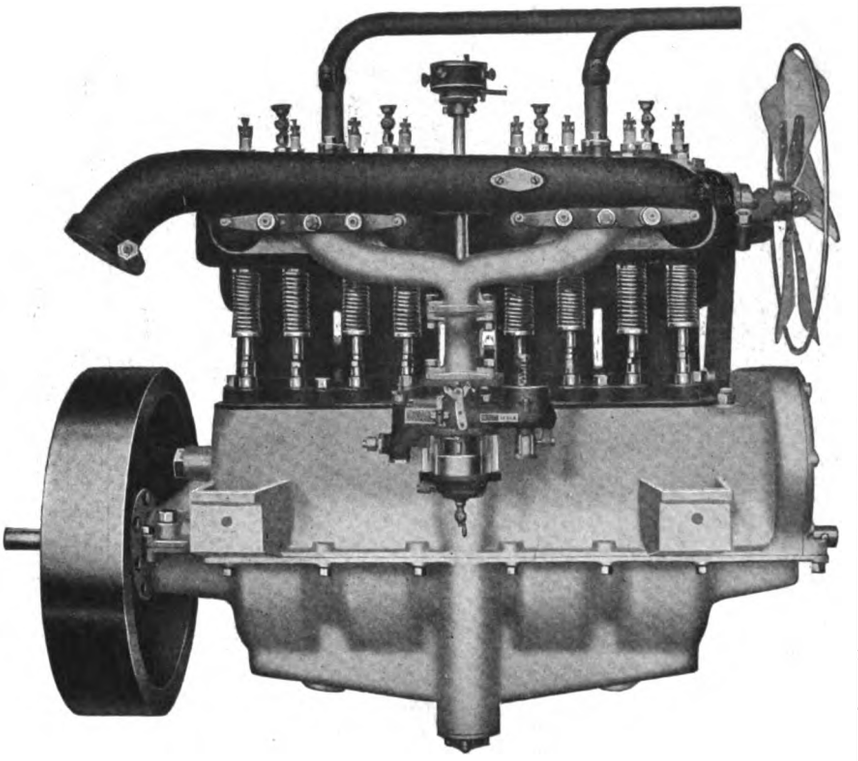
Furnished with tubes staggered or Mercedes finish, as shown on cuts.

See Fedders Radiators on such cars as Packard, Thomas, Pierce, Haynes, Matheson, National, etc., for 1910.



## FEDDERS MANUFACTURING WORKS, Buffalo, N. Y.


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THE

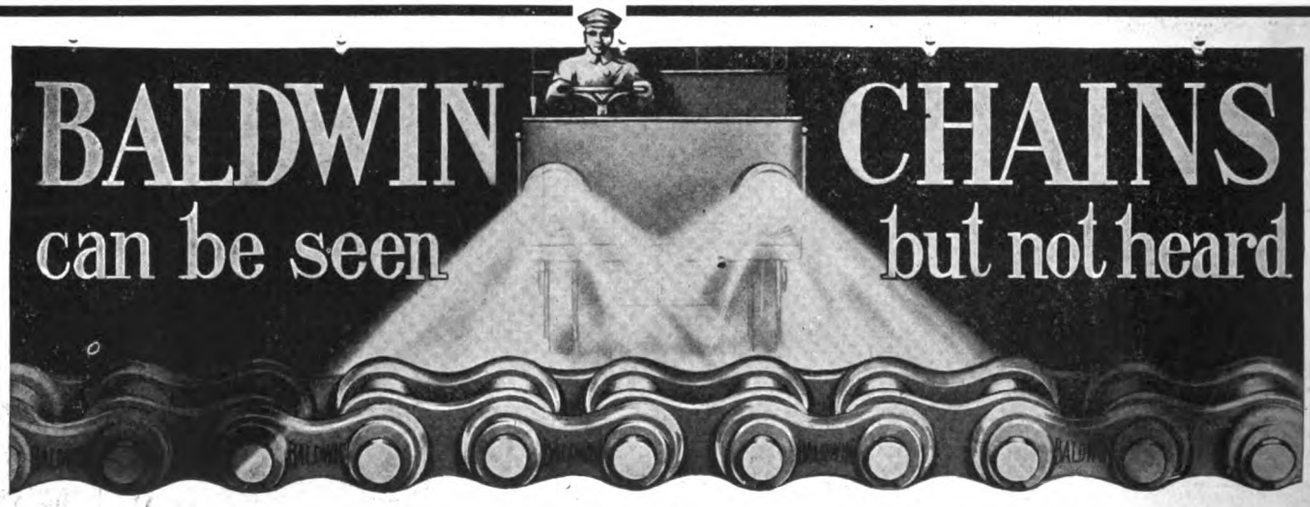
# Parker Motor

If you want to improve the power plant in your car without materially increasing the cost it will pay you to investigate the merits of the Parker Motor.

Knowing the merits and demerits of every stock motor on the market, we unhesitatingly state that the Parker Motor is the best for every purpose.

We can convince you of this fact if you will give it a trial. Write today or come to Hartford and let us demonstrate.

**THE McCUE COMPANY**
**Hartford, Conn.**
Exclusive Selling Agents.




They can be seen on a great variety of cars but not heard because on account of their proportion of weight to strength, and nicety of construction, they run comparatively noiseless. They are made detachable and riveted, each the same price; quality of stock carefully selected. Send for description.

**SPROCKETS** We make all kinds of sprockets; let us quote you.

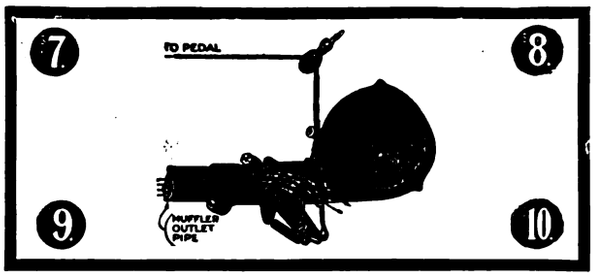
SALESMEN:

H. V. GREENWOOD, 166 Lake St., Chicago, Ill.
M. A. BRYTE, 788 Mission St., San Francisco, Cal.
C. J. IVEN, Rochester, N. Y.

**BALDWIN CHAIN & MFG. COMPANY, Worcester, Mass.**


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# JERICHO
## THE PERFECT MOTOR CAR SIGNAL




*The above is our claim*

**WE MAKE IT UNQUALIFIEDLY**

Say "JERICHO" to any one of the thousands of satisfied users to-day—north, south, east, west—and they will substantiate this claim.

There is a size to fit *your* car. Consult your dealer, or write direct to us for folder.

**THE RANDALL-FAICHNEY CO., Boston, U. S. A.**

**Makers of "B-LINE" OIL and GREASE GUNS**

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**Price $1.00**

Made in all sizes. Mica and Porcelain interchangeable.

**Please Do Not Confuse**

## Auburn Ignition Spark Plugs

with similarly named, poorly constructed imitations. When you buy Spark Plugs please see that the words

**"THE AUBURN IGNITION PLUG"**

are stamped on the metal of the hexagonal nut, also on the porcelain. These words guarantee the plug fully, and assure you that you are receiving the original and genuine Auburn Ignition Plugs—plugs made in the largest factory devoted exclusively to plug making in the country.

The use of a similar name on a cheap and inferior product has forced us to give this notice to motorists, and to the trade in general:

**AUBURN IGNITION SPARK PLUGS**—both mica and porcelain—are as superior a product as can be produced from the finest materials by the most up-to-date methods known to the manufacturing world.

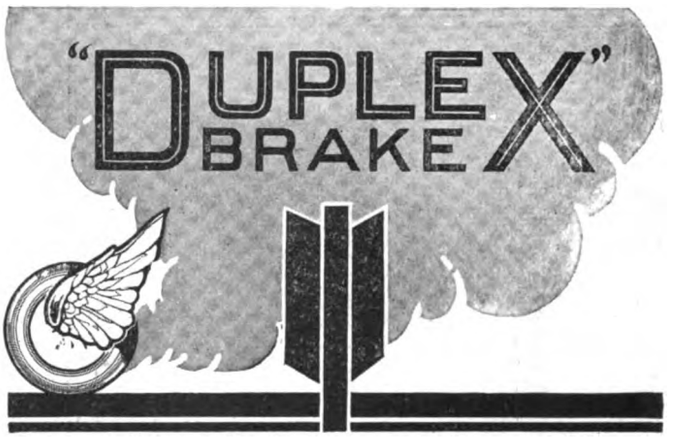
Our reputation was made on them—our guarantee is back of them.

**Remember, please, that The Auburn Ignition Mfg. Co. is in no way connected with any other company previously in Auburn, N. Y., or now doing business in Auburn, N. Y.**

**THE AUBURN IGNITION MFG. COMPANY**

**Dept. J, Auburn, N. Y.**

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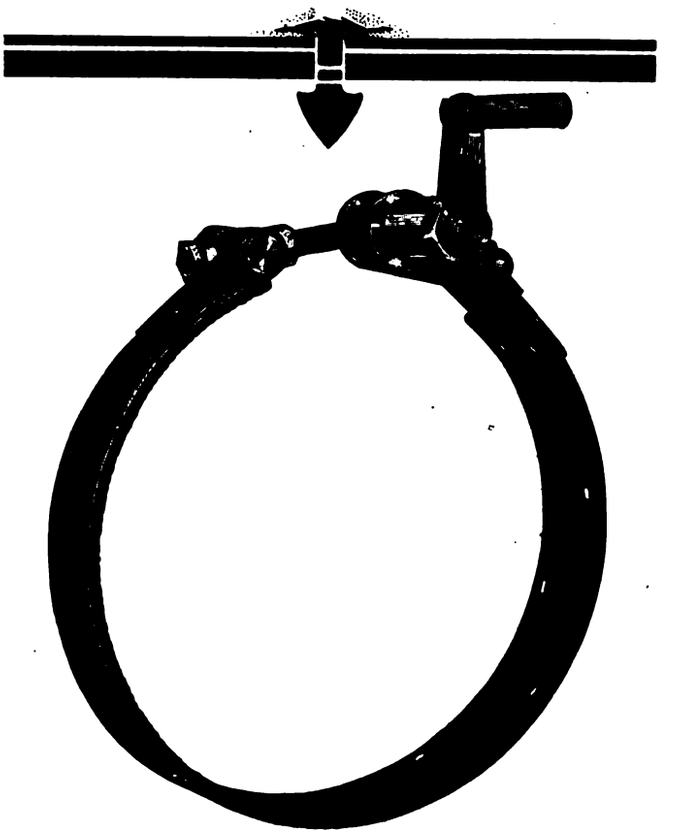

# This Brake Acts Instantly—Either Forward or Backward

HOW are your brakes? A new set would make your car more efficient and safe. Get a set of "Duplex" brakes. Inexpensive, easily installed, do away with all troubles. Be safe and sure about your brakes above all things. They act in either direction. Write to us to-day. See if we can't help you. We'll be pleased to quote prices and give full particulars.

*We also make the "Raymond" Brake and "Raybestos" Brake Lining.*

**THE ROYAL EQUIPMENT COMPANY**

436 Housatonic Avenue Bridgeport, Conn.



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# Empire Tires

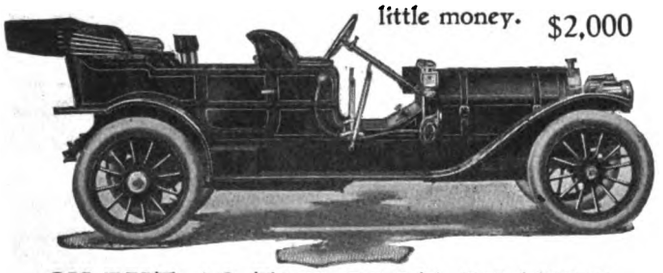
WEAR LONGEST

EMPIRE TIRE CO., Trenton, N.J.

THE

# MITCHELL SIX

The only six cylinder car in the world that sells for so little money. $2,000



SILENT AS THE FOOT OF TIME

Specifications: MOTOR, 4½x5. TRANSMISSION, selective type. WHEELS, 36x4. WHEEL BASE, 130 inches. IGNITION, magneto and dry cells. Color, dark blue, cream running gear; option, dark maroon, cream running gear. TOOL BOXES, steel baked enamel. SEATING CAPACITY, seven passengers. STEERING WHEEL, natural finish. SPRINGS, platform type. BODY OPTIONS, seven-passenger touring car or close-coupled body. EQUIPMENT, oil lamps and horn, full tool equipment, including jack.

# MITCHELL

Licensed under Selden patent.

*F. O. B. Racine, Wis.* Racine, Wis., U. S. A.

# WETHERILL FINISHED CASTINGS

¶ Die cast from Parson's white brass make the finest kind of engine bearings.

¶ Absolutely accurate and every one interchangeable.

¶ We are now making 25,000 bearings per day, and increasing output as rapidly as possible. A case where quality is recognized and put to use.

WETHERILL FINISHED CASTINGS COMPANY

PHILADELPHIA, PA.

# KEEPS YOUR CAR "JUST LIKE NEW"



3 in One will keep your car as bright and shiny as the day it it left the factory if you'll just do this:

After washing the body in regular way apply a few drops of 3 in One to a piece of waste. Then rub woodwork of car. That will renew the sparkling newness of the finish, preserve and harden the varnished surface, preventing chipping, cracking, peeling.

Try 3 in One on all leather parts—rub seats, top, curtains with waste moistened with 3 in One. That will positively prevent hardening, cracking or rotting of leather. Preserves its "new look," too.

Try it on all metal parts—lamps, hand rails, etc. A little of it now and then will positively prevent all tarnish and rust.

8 oz. bottle, 50c.; 3 oz. bottle, 25c.; trial size, 10c. At all garages, supply dealers and good stores. Write for free sample bottle today.

3 IN ONE OIL CO., 64 Broadway, New York.


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# HOMO

More Power

Less Gasoline

Steady Pull




More Speed

Less Heat

Less Vibration

**MAKES A FOUR CYLINDER RUN LIKE A SIX CYLINDER ON THE GASOLINE CONSUMED BY A TWO CYLINDER**

**THE GREATEST SCIENTIFIC ADVANCE THE GASOLINE MOTOR WORLD HAS EVER KNOWN**
**WRITE FOR DESCRIPTIVE MATTER NOW**

**GASOLINE MOTOR EFFICIENCY CO., Montgomery Street, Jersey City, N. J.**




MILLERS PAN-AMERICAN LUBRICANTS




# MILLER'S Pan-American Motor Cylinder Oils

are refined from **the finest grade Pennsylvania Crude** and are pure, distilled, highly-filtered mineral oils. **Have a high fire test, low cold test** and not affected by climatic changes. **They are made in three grades** suitable for all types of water and air cooled **Motor Cars, Motor Boats and Motorcycles.** In order to convince you of the efficiency of these oils we are willing to make you a special price for an initial order, much lower than usually quoted on other high grade oils.

**WE HAVE HANDLED THIS OIL DURING THE PAST EIGHT YEARS AND DO NOT HESITATE TO RECOMMEND IT TO BE THE EQUAL OF ANY FIRST CLASS OIL ON THE MARKET.**

**Special Prices for Manufacturers, Jobbers and Dealers**

**ADDRESS OIL DEPARTMENT**

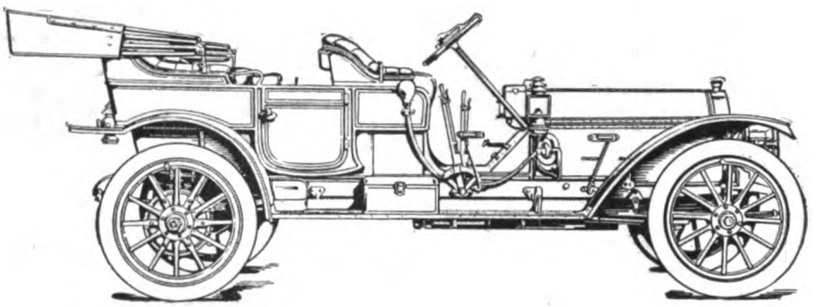
**CHAS. E. MILLER,** MANUFACTURER, JOBBER, EXPORTER AND IMPORTER
**Home Office, 97-99-101 Reade St., New York City**

**The Largest Auto Supply House in America.**

**BRANCHES—Philadelphia, Boston, Cleveland, Detroit, Buffalo, Hartford, Atlanta, Brooklyn, New York City.**


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# Stevens-Duryea



## THE MODEL AA—ITS POWER

¶ When ascending a hill—the primary sensation is, being moved by a gentle but irresistable force, not that feeling—which one cannot forget—of propulsion by an engine, and an engine that is working hard.

¶ In the six cylinder model AA engine, the power strokes are overlapping, resolving into a steady pressure entirely overcoming vibration.

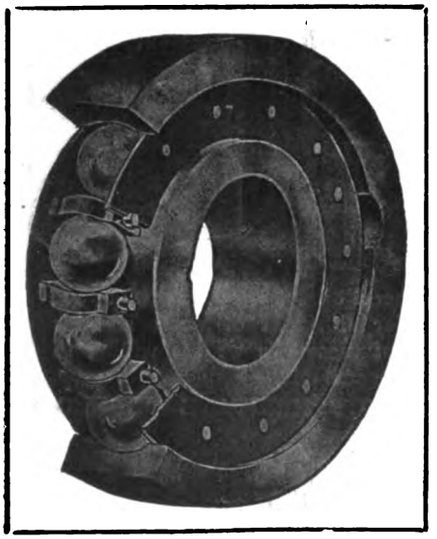
A HIGH EFFICIENCY ENGINE IN A HIGH CLASS CHASSIS

Our latest Catalog will be mailed for the asking.

STEVENS-DURYEA COMPANY
CHICOPEE FALLS-MASS.
LICENSED UNDER SELDEN PATENT

The Pioneers to Employ 92% of Balls in the Raceway

# SCHAFER
# Ball Bearings
## Fear No Comparison



**PROTECTION** SCHAFER BALL BEARINGS are fully protected by United States and European patents. Each and every article (except the balls) manufactured at our Schweinfurt plants are marked **S C H,** together with the trade size and date of manufacture.

*Write for Catalogue.*

SOLE IMPORTERS

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*"An Acknowledgment of Fisk Superiority"*

# FISK Quality TIRES

WHEN THE PLEASURE of the consumer and the profit of the maker or dealer are the main considerations, men who invariably use good judgment in other matters buy and pay high prices for inferior tire equipment.

WHEN SPEED AND SAFETY mean the saving of human life and property, the purchaser is apt to stop, and think, and buy the best.

FISK *QUALITY* TIRES AND THE FISK REMOVABLE RIM are the pnuematic equipment on 75% of the motor fire apparatus, police patrol wagons, ambulances and other vehicles used for strenuous municipal work in this country to-day, where the element of pleasure is merged in the business-like meeting of most abnormal and exacting conditions.

**There Could be No More Splendid Tribute to Fisk *Quality* than this Voluntary Selection for Work in which the Truth of Every Claim We Have Ever Made is So Vitally at Stake.**

***Booklets full of straightforward facts about Fisk Quality Tires and the Fisk Removable Rim will be mailed on request.***

**THE FISK RUBBER COMPANY**
**Department 23 CHICOPEE FALLS, MASS.**

***Branches in Seventeen Cities***

Pullman

# 1911 Models

## NOW READY FOR DELIVERY

ADVANCE INFORMATION BULLETIN MAILED ON APPLICATION.

DEALERS: Only a limited number of machines will be built in the 1911 season, which will be constructed for delivery on specified dates. It behooves progressive dealers to make immediate application for territory as applications must necessarily be treated in the order received.

It has been found impossible to improve upon the design and construction of 1910 models which will be continued with only detail changes.

**Pullman Motor Car Co.**
**York, Pa.**
Licensed under Selden patent.

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# BRISCOE PRODUCTS

**Radiators, Hoods, Fenders, Sheet Metal Parts of All Kinds**

**Briscoe Manufacturing Co.**
General Offices, Detroit, Mich. Factories, Detroit and Newark, N. J.

# STEERING GEARS
# CONTROL LEVERS
# RADIATORS

PROMPT DELIVERY

CENTAUR MOTOR COMPANY
510 Majestic Building DETROIT

## Standard Equipment

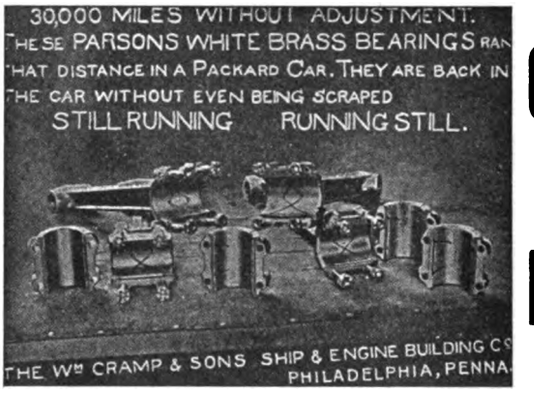
means the best in automobile accessories. They eliminate trouble, reduce cost of upkeep and make motoring safe, comfortable and enjoyable.

Jones Speedometers
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Wood Chain Tire Grips
Connecticut Ignition Specialties

UNITED STANDARD EQUIPMENT MANUFACTURERS — WE PROTECT THE DEALER, THE CAR AND THE OWNER

Soot-Proof Spark Plugs
Automatic Windshield
MoTorkoL
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UNITED MANUFACTURERS, Inc. 250 West 54th Street, New York




# Cramp — Metals



DEALERS: Are you handling the

## EDELMANN TIRE GAUGE?

If not, why not?

They sell on sight! Because they are what every car owner needs. Indicate the exact pressure in the tire at all times.

Price $2.00 All dealers or prepaid mail on receipt of price

E. EDELMANN & COMPANY
51 W. Kenzie Street Chicago

# HARDENING

**High Speed Steel Hardening a Specialty**

Case Hardening, Tool Steel Hardening
Heat Treating and Annealing

BRIDGEPORT METAL TREATING CO.
Bridgeport, Conn.

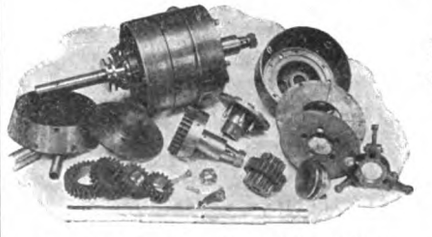
# Accurate Gears

CAN furnish all kinds of gears of any material and in any quantity, all with accurately cut or planed teeth.

LET US QUOTE YOU PRICES

**The New Process Raw Hide Co.**
SYRACUSE, N. Y.

# WARNER GEAR COMPANY
MUNCIE, INDIANA



25 H. P. PLANETARY TRANSMISSION
Showing Both Cone and Disc Type Clutch.

Steering Gears
Transmissions
Differentials
Clutches
and
Control Levers


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# CORBIN FOR 1910

**"Full Jeweled!" A Splendid Car Perfected!**

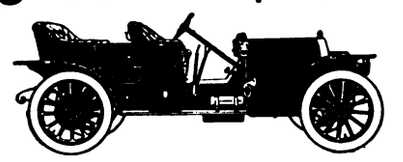
Touring Cars, Runabouts and Toy Tonneaus . . $2,750.00
Including Cape Top, Bosch Magneto and Prest-O-Lite Tank in addition to all regular equipment.

*Write for advance circular H.*

**The Corbin Motor Vehicle Corporation, New Britain Conn.**
Licensed under Selden Patent.

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# National 40——$2500



**The Car That Is Never Found Wanting**

Bigger, Faster, More Powerful, More Luxurious
Than Any Car Near Its Cost.

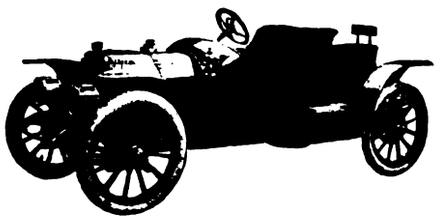
**National Motor Vehicle Co.**
**1007 E. 22d Street** Licensed under Selden Patent **Indianapolis, Ind.**

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# MERCER

TOURING CAR
TOY TONNEAU
SPEEDSTER

**Each $2150**



**Style, Luxury, Quality, Strength, Speed.**

**Made Right and Stays Right**

*Let us hear from you.*

**MERCER AUTOMOBILE CO., Box 126, Trenton, N. J.**

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# The Inter-State "40" $1750

**The Maximum in Speed, Comfort, Reliability and Value**

**4-Cylinder, 40 H.P., 118-inch Wheelbase, 34x4-inch Tires, U. & H. Imported Magneto, Double Ignition System, Multiple Disc Cork Insert Clutch of improved design, Three-quarter Elliptic Rear Springs and many other features found only in the higher priced cars.**

**Our proposition is interesting to all dealers. Compare our specifications with any high priced car.**

**INTER-STATE AUTOMOBILE CO.** (28) **Muncie, Ind.**
Licensed under Selden patent.

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# Badger 30 $1600

**112 inch wheel base, 34 inch wheels, quick detachable rims, Bosch dual ignition with storage battery, selective type transmission, Brown-Sharpe gears, F. & S. ball bearings.**

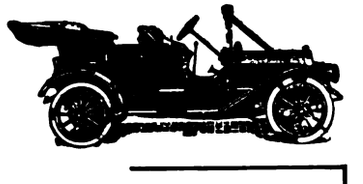


*Write for our new liberal agency proposition.*

**BADGER MOTOR CAR COMPANY, Columbus, Wis.**

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# $1,600 Cartercar



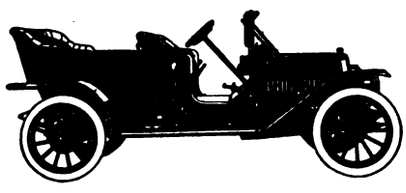
Model "L," 4 cylinder, 30-35 H.P., 110 inch wheel base, 5 passenger, Friction Transmission. Chain-in-Oil Drive, any number of speeds, will climb a 50% grade with load, including magneto, gas lamps, generator, horn, mats, tools, jack, etc. $1,600.

Model "H," 4 cylinder, 25 H.P., 100 inch wheel base, Runabout $1,100. Double Rumble $1,125 Double Divided Rear Seat $1,150. Miniature Tonneau $1,150.

Write for 1910 catalog.

**CARTERCAR CO.**
**Pontiac, Mich.**
Licensed Under Selden Patent.

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**Model "50"— 4 Cylinder Touring Car, . . $2350**
**Model "40"— 4 Cylinder Touring Car, . . $1700**
**Model "30"— 4 Cylinder Touring Car, . . $1250**

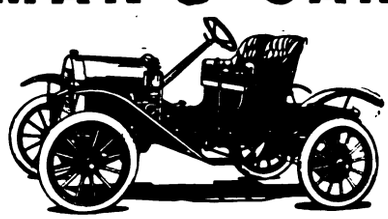
**JACKSON AUTOMOBILE CO.**

**Licensed under Selden Patent.** **JACKSON, MICH.**

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# EVERYMAN'S CAR

**Seven Models**



**Send for Literature**

**The BRUSH $485.00**

**BRUSH RUNABOUT COMPANY**
**414 Baltimore Avenue, Detroit, Mich.**


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# Kelly-Springfield Auto Tires

Made by the Makers of the famous Kelly-Springfield solid tire

**Not a Car of Advertised Value,**
**But a Car of Intrinsic Worth.**

# STERLING

**$1750**

Let us send you our Catalog

**ELKHART MOTOR CAR COMPANY, Elkhart, Ind.**

## FRANKLIN—1911

New Features Summarized: Doors to front seat; flush-sided, sloping-hood bodies; lower seats and lower effect generally; new oiling system, overcoming smoking; quiet valve action; engine air jacket arranged to give complete accessibility; more room between dash and front seat and a greater rake to steering column; deeper and more luxurious upholstering; still larger tires; all motors accurately balanced.

¶ Franklin resilient, full-elliptic-spring, wood-chassis-frame construction gives the only luxurious riding. There is no fatigue; the automobile does not deteriorate.

¶ Franklin air cooling is the ideal system for an automobile engine; it affords the lightest, simplest construction; it does not require attention; it is independent of climate and weather conditions; it does all that water cooling can do, and more; it can not break down or get out of order; there are no working parts not required in the engine itself. It is superior in every way to any other cooling system.

H H FRANKLIN MANUFACTURING COMPANY Syracuse N Y
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FRANKLIN AUTOMOBILE COMPANY Syracuse N Y
Sole Distributor

## THE SELDEN CAR
FOR 1910

| | |
|---|---|
| 5-Passenger Touring Car | $2,000 |
| 3-Passenger Roadster | 2,000 |
| 4-Passenger Torpedo Tonneau (Magneto Included) | 2,250 |
| 7-Passenger Touring Car (Magneto Included) | 2,500 |

Booklet and specifications upon application.

**AGENTS WANTED IN UNOCCUPIED TERRITORY.**

**SELDEN MOTOR VEHICLE CO.**

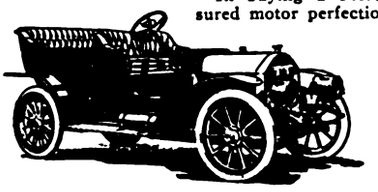
**GEO. B. SELDEN, President, - ROCHESTER, N. Y.**

Licensed under Selden patent.

# Pierce-Racine

**$1750**

**The Car with a Famous Engine**



In buying a Pierce-Racine you are not only assured motor perfection, but satisfaction in every way. The body, wheels, springs, upholstering, accessories, etc., are all of a superior quality found only in the high priced American and Foreign makes. Write today for catalog.

**PIERCE MOTOR COMPANY**
**111 22nd St., Racine, Wis.**

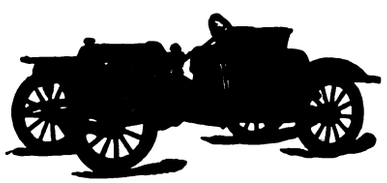
## K-R-I-T

**"The car with the invisible start."**

96 in. wheel base
32 in. wheels

**22½ H. P. $800**

**Sliding gear transmission. Multiple disc clutch. Weight, 1200 lbs.**



**Runabout $800.**
**Roadster $825.**
**Surrey $850.**

Write for Catalog

**K-R-I-T Motor Car Company**
**DETROIT**

THE THOMAS FLYER is the champion endurance car of the world. Over 80 per cent. of the people who own Thomas Flyers previously owned other cars. They were in a position to appreciate automobile values. The Thomas Flyer is now their unqualified choice.

The E. R. Thomas Motor Company maintains a force of traveling experts who periodically call upon every Thomas owner and make sure that his car is in good condition. Let us send you some of the letters from our owners and some of our interesting engineering literature.

E. R. THOMAS MOTOR CO., Buffalo, N.Y.

Licensed under Selden Patent.

THE MASTER INTERRUPTER — U&H — MADE IN GERMANY

# The Master Magneto!

TRUE HIGH TENSION TYPE

**J. S. BRETZ COMPANY**

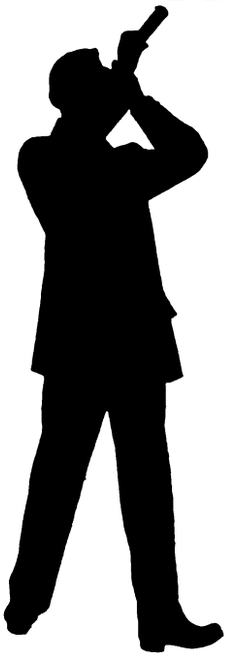
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TIMES BUILDING NEW YORK


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ALUMALOYD SHEETS

A SPECIAL ANALYSIS SHEET COATED WITH ALUMINUM-ALLOYED METAL



**They're worth looking up, Mr. Auto Builder, Because—**

You cut out time-consuming, output-retarding,, expensive, preliminary work and get down to business in the finishing department, right at the start.

No sandpapering, rust-scouring, pumice-stoning, putty coating or applying of roughstuff. All ALUMALOYD requires for a high and durable finish is a primer, a one-color coat, a rubbing and a finishing varnish.

Honestly, can you beat that? And aren't you beating yourself out of time, capacity and money by loitering along in the old slow way?

Ask for the details NOW.

**THE STARK ROLLING MILL CO.**
**Alumaloyd Sheet Department**
**Canton, Ohio**

Mosler Spit Fire
THE PLUG WITH THE DEEPEST CHAMBER
Leads the World

READ **NOTICE!** READ

Our SPIT-FIRE Plugs are for sale by all legitimate dealers and jobbers.

If you cannot get a delivery—
THERE'S A REASON!

WRITE US DIRECT

WE CAN SHIP ON TWENTY-FOUR HOURS' NOTICE

Dealers and jobbers beware! We protect our trade mark




A. R. MOSLER & Co. 163 W 29TH ST. NEW YORK.

Diamond
The Pioneer Motor Tires of America
FIRST—BEST
THE DIAMOND RUBBER COMPANY, Akron, Ohio

SERVICE and SATISFAOTION
are assured when
G&J TIRES
are used.
G & J TIRE CO., Indianapolis, Ind.
We Sell Continental Demountable Rims.




A Real Battery
AT A REAL BARGAIN

We have on hand a number of 6 v. 60 amp. dry type storage batteries, built for us by one of the best known manufacturers. These batteries were built to sell at $26.00 and are worth the money, but as we have accidentally become overstocked, we offer them while they last at $12.50.

No better battery is built or sold at any price.

EXCELSIOR SUPPLY CO. (Estab. 1876) Randolph St. Bridge CHICAGO, ILL.

Regal 30
"The Ideal Car for all Purposes"
The only $1250 car with a record of three years of success behind it
$1250
Runabout, Baby Tonneau, Touring Car, Coupe
Greatest Automobile Value in America
WRITE FOR OUR LITERATURE
REGAL MOTOR CAR COMPANY, Detroit, Mich.


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# It Stands to Reason That

## *The BEST Car for the Purchaser, or The BEST Car for the Dealer is*

# The Car That Made the BEST Record

## In the 1910 Glidden Tour

### *For the Purchaser*

**Why!** In buying a car you demand a demonstration to see how it runs; how it rides; how it handles and above all ***what kind of service it will give. BUT—***

Any new car usually runs smooth—"any new broom usually sweeps clean." What you want to know is:

***Will it give lasting service; efficient service; dependable service?***

You can't determine this from an hour or two on a boulevard. It takes a test such as the recent Glidden Tour, (where every single bolt was subjected to the most ***drastic*** abuse), to ***prove*** the things you ***ought to know BEFORE you buy.***

The 1911 Moline stood this rigorous demonstration ***better than any car*** entered. It made the ***BEST RECORD*** of the twenty-six cars competing and it had 60 H. P., 6-cylinder competitors.

It carried not a single repair part—it needed none. Official seals on tool bags were never removed.

Briefly, that's why it is the best car for you.




### *For the Dealer*

**Because:** If you are a dealer what better argument can you show a prospective buyer that the car you are trying to sell him will ***"stand up"*** through thick and thin—rough or smooth—give him the maximum amount of ***real dependable*** service, than the performance of the 1911 Moline in the recent Glidden Tour?

This was a ***demonstration worth while***—a test that ***"tested"*** every identical part of the car in the ***severest*** manner possible, a performance which has never been equaled.

It ***proved*** the Moline is a car of exceptional construction, efficiency—a car that is not only efficient in some one feature, but in ***every*** feature—a car that when sold will cause you no trouble, but instead bring you ***more sales.***

It won the Chicago Trophy with 73 points less penalization than the winner of the Glidden Trophy, under same identical rules.

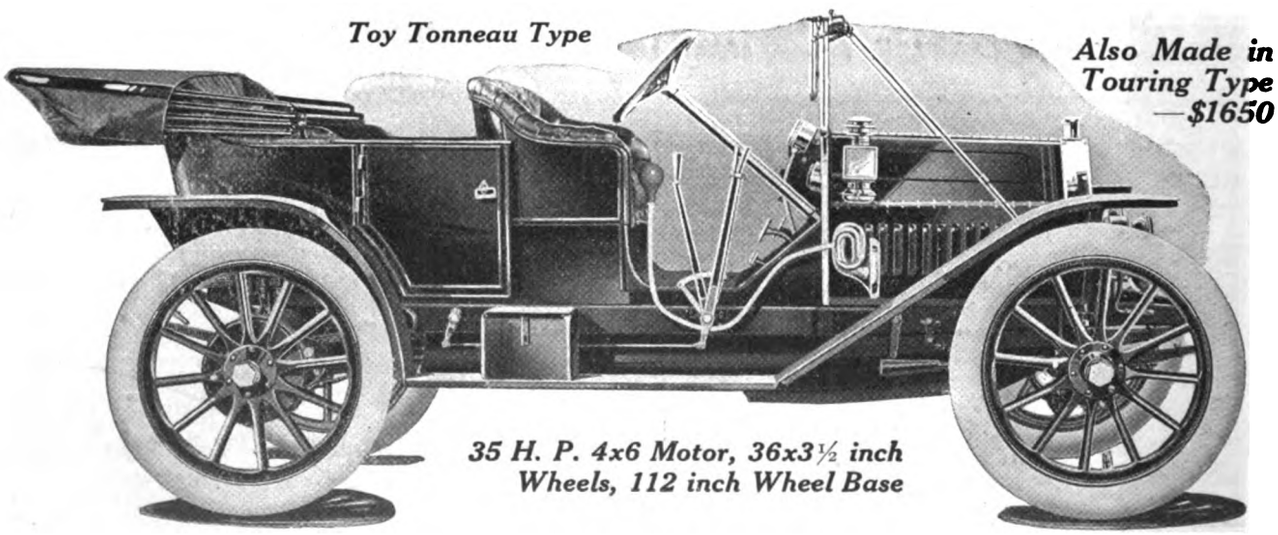
We have some excellent territory open—write for it before some one gets in ahead of you—it won't last long.

***Write for Booklet 61, "Story of the Glidden Tour" and read how it won over every car in the entire tour.***

# 1911 Moline $1600

*Toy Tonneau Type*

*Also Made in Touring Type —$1650*



*35 H. P. 4x6 Motor, 36x3½ inch Wheels, 112 inch Wheel Base*

**Moline Automobile Co.,** Licensed Under Selden Patent **61 Root St., East Moline, Ill.**

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# STEARNS WINS

## Breaking World's Record

¶In the 24-hour race at Brighton Beach, New York, August 19th and 20th, a 30-60 h. p. STEARNS easily defeated the entire field, finishing 75 miles ahead of the nearest competitor and

## Breaking the World's Record by 57 Miles

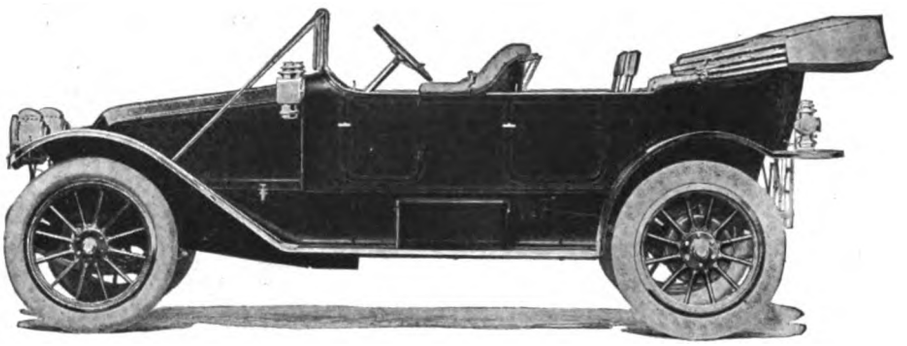
¶From start to finish of the terrible grind the STEARNS ran like a watch, averaging over 52 miles per hour, including stops for oil, gasoline, etc. This is the greatest achievement in the history of 24-hour races and is another splendid tribute to the speed and power of the STEARNS.

**THE F. B. STEARNS CO., Cleveland, Ohio**

Licensed under Selden patent.


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# Franklin "The Car Beautiful"



Model H fitted with seven-passenger open body

## Tenth Annual Announcement

In the Franklin line for the 1911 season are four chassis sizes, two "sixes" and two "fours", fitted with eleven different styles of open and closed bodies. All bodies are the latest Parisian type.

With no radiator and fan to interfere, the Franklin body and hood lines are blended harmoniously, giving a beauty and smartness obtainable by no other design.

### List of Models and Specifications

Model H, larger and more powerful than last year, is fitted with full seven-passenger open body or double torpedo-phaeton four-passenger body.

Specifications: Six 4½ x 4½ cylinders; 48-horse-power; 133-inch wheel base; tires, rear 38 x 5½ inches, front 37 x 5 inches; weight, touring car 3300 pounds; price, $4500; wheel base of torpedo-phaeton, 126 inches; weight, 3200 pounds; price, $4500.

Model D, larger, with six cylinders, is fitted with full five-passenger open body, double torpedo-phaeton four-passenger body or seven-passenger limousine or landaulet body.

Specifications: Six 4 x 4 cylinders; 38-horse-power; 123-inch wheel base; tires, rear 37 x 5 inches, front 36 x 4½ inches; weight, touring car 2800 pounds, torpedo 2700 pounds; prices, touring car $3500, torpedo-phaeton $3500, limousine or landaulet $4400.

Model M, a new medium-size car, fitted with five-passenger open body or seven-passenger limousine or landaulet body.

Specifications: Four 4 x 4 cylinders; 25-horse-power; 108-inch wheel base; tires, rear 34 x 4½ inches, front 34 x 4 inches; weight, touring car 2300 pounds; price, $2700; limousine or landaulet, price, $3500.

Model G, longer wheel base and roomier, fitted with four-passenger open body. It is the only high-grade small car built in America.

Specifications: Four 3⅜ x 4 cylinders; 18-horse-power; 100-inch wheel base; tires, rear 32 x 4 inches, front 32 x 3½ inches; weight, 1850 pounds; price, $1950.

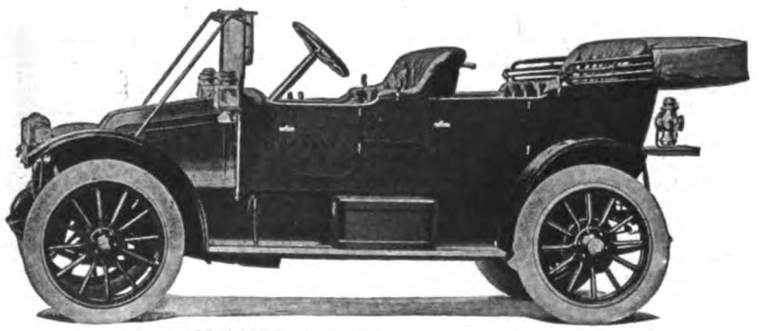
Special runabout, G type, fitted with single torpedo-phaeton two-passenger body.

Specifications: Four 3⅜ x 4 cylinders; tires, rear 32 x 4 inches, front 32 x 3½ inches; weight, 1800 pounds; price, including top and glass front, $1950.

Standard equipment, all models, includes top.

New Features Summarized: Doors to front seats; flush-sided, sloping-hood bodies; lower seats and lower effect generally; new oiling system, overcoming smoking; quiet valve action; engine air jacket arranged to give complete accessibility; more room between dash and front seat and a greater rake to steering column; deeper and more luxurious upholstering; still larger tires; all motors accurately balanced.

Deliveries are on schedule; selection of date is on order of sale



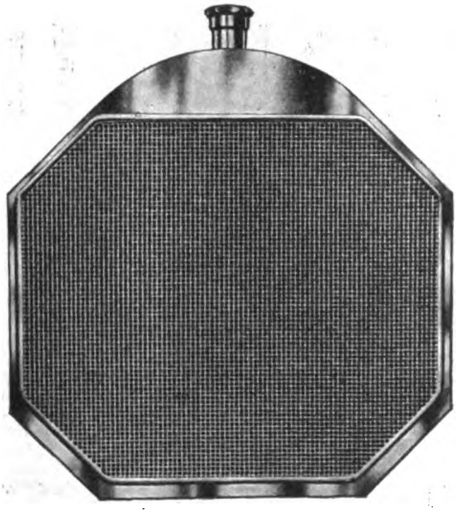
Model M fitted with five-passenger open body

New catalogue on request

H H FRANKLIN MANUFACTURING COMPANY Syracuse N Y
Licensed under Selden Patent

FRANKLIN AUTOMOBILE COMPANY Syracuse N Y
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# Where "Good Enough" passes muster Mayo Radiators are not found

¶ Mayo Radiators are made for those who really demand the best and recognize it when they see it.

¶ Enough motor car makers recognize Mayo Radiators to absorb an increasing yearly capacity.

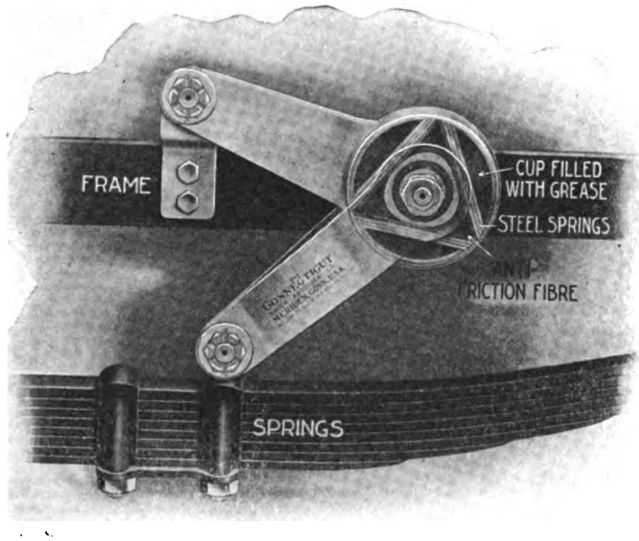
¶ We take only such contracts as we can handle according to specified deliveries and deliver according to schedule.

¶ If the Mayo Radiator class and policy appeal, you may wish to be numbered among the roll of Mayo customers. You would be in good company.

**MAYO RADIATOR CO., New Haven, Conn.**

# WOULD YOU BUY AN OUT-OF-DATE CAR

at an up-to-date price? Would a 1906 Model suit you if you could get a 1911? Of course not. Then why think of buying a set of old-style shock absorbers when you can get




CONNECTICUT

## Shock Absorbers

The Connecticut is mechanically correct. Its design is perfect. Material the best. As every experienced motorist knows, the word CONNECTICUT means "highest possible quality." The Connecticut can be attached to any style of car, is self-lubricating, and after absorbers are properly adjusted and fitted you need not touch them. Wouldn't you like to know more about the CONNECTICUT Shock Absorber? Write for our interesting folder—it's free.

UNITED STANDARD EQUIPMENT MANUFACTURERS TO PROTECT THE DEALER THE OWNER AND THE

**Connecticut Shock Absorber Dept.**

**United Manufacturers**

**250 West 54th Street, New York**


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# WEED CHAIN TIRE
# Wins Suits—but

**The Weed Company has won its test suit against the Excelsior Supply Company under Parsons Patent No. 723,299, and has obtained preliminary injunctions against manufacturers or sellers of SUPERIOR, VICTOR, ZIG-ZAG, CLEVELAND, WEARWELL, PITTS, ANTI-SKID REPAIR COMPANY, KRISS-CROSS, MORGAN, WHITTAKER, RELIABLE, V ANTI-SKID, CHICAGO, and other chain grips. Instead of raising prices to recoup itself for expenses of litigation, the Weed Company will make a decided REDUCTION IN PRICES, the new list to be announced early in September.**

## Weed Chain Tire Grip Co.

United Manufacturers


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# GRIP COMPANY
# Reduces Prices

**Rapid increase in our business, enlargement of plant, introduction of new methods and machinery, and production of chains in enormous quantities have resulted in marked economies in cost, the benefit of which we intend giving the public. Our QUALITY will still remain the same—the highest quality of electrically welded chain combined with skilled workmanship.**

**Buy Weed Chains to-day—you have to have them when the roads are muddy or the pavement slippery and "greasy." They are indispensable. The real Weed Chains have BRASS PLATED CROSS CHAINS—and the name "WEED" is stamped on the hooks—your guarantee that they are genuine.**



**28 Moore St., New York**

**ole Distributors**


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# The Dayton Motor Car Co.

**Dayton, Ohio**

place the largest individual order ever given for demountable rims. All 1911 Stoddard-Dayton and Courier cars will be equipped with

# THE STANDARD UNIVERSAL RIM

**MANUFACTURED BY**

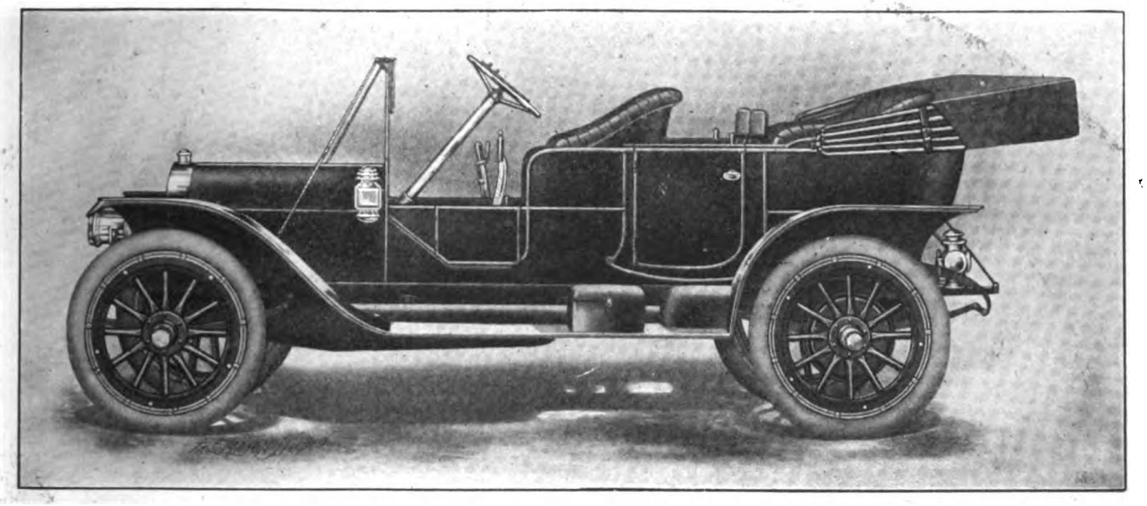
## The United Rim Company

**Akron, Ohio**

The wholesale adoption of the Standard Universal Rim by representative automobile manufacturers is the best argument in favor of its practical and desirable demountable and quick detachable features.

# FITS ALL TIRES


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1911 Model R 40 H. P. Touring Car. Price Equipped $3300.00

QUALITY Knox QUALITY

# Quality Is What You Get When You Buy a Knox

**RELIABLE MOTOR CARS MANUFACTURED BY RELIABLE MAKERS**

¶ KNOX motor cars are the result of years of experience in manufacturing high grade cars exclusively and KNOX water cooled types have many times shown the superiority of up-to-date construction ever since their introduction.

¶ KNOX types and features of construction are not copied from other makes, but are designed and manufactured in a completely equipped factory and under the supervision of a competent engineering department.

**Knox Features are Unit Power Plant, Three Point Suspension, Cylinders Made with Detachable Heads and Valves in the Head, De Dion Lubricating System, Three Plate Clutch, Straight Line Shaft Drive, Etc.**

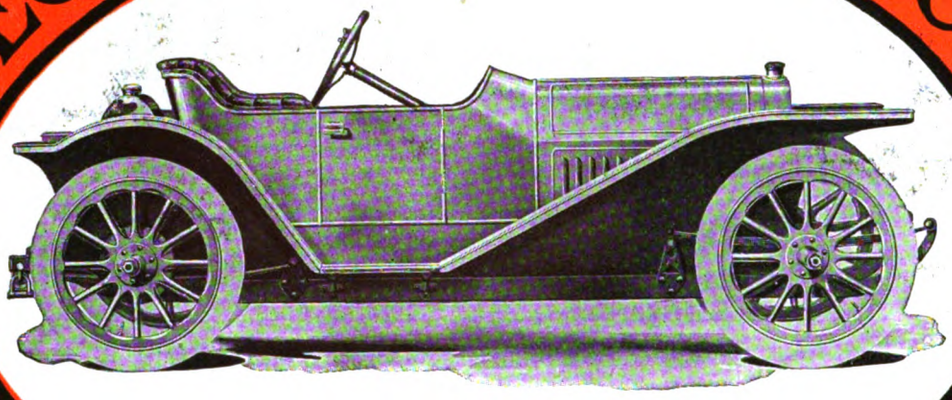
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## KNOX AUTOMOBILE CO., Springfield, Mass.

Licensed under Selden patent.

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REGAL MOTOR CAR CO.



REGAL "20" - $900

DETROIT, MICH.

## Full Underslung Frame—Low Center of Gravity—10-in. Clearance
## A Swift, Smart, Exclusive Roadster—Made in Fore Door and Open Styles

A study of the specifications will show that this model is in size, power and efficiency a car of masterful design. It carries two passengers anywhere with ease. Has power enough and to spare. Is long enough and heavy enough so that it "sticks" to the road. While it will be seized upon at once by discriminating city drivers because of its unusually distinguished appearance and exclusive lines, yet its strength of construction and its road efficiency make it suitable for road service anywhere and everywhere.

The 5,000 Regal "Twenties" building for 1911 will go fast.

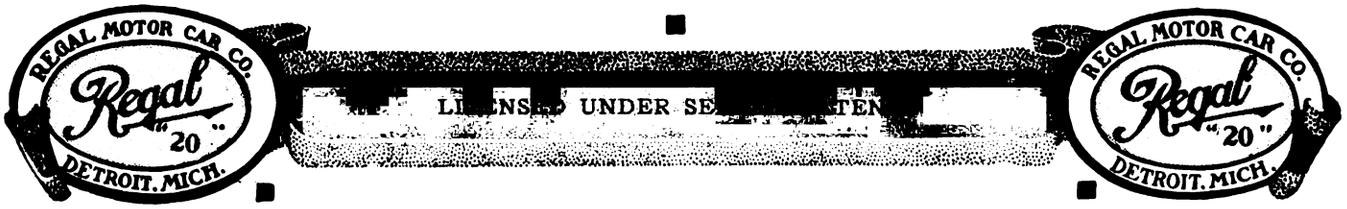
The value given in this car would be impossible were it not for our large capacity and economical factory management. It is the Regal System to spend any amount necessary on fine machinery, fine materials and fine workmanship, but we save for Regal buyers the money that has ordinarily gone into reckless salaries and extravagant overhead expenses.

The Regal "Twenty" outclasses in style, power and quality any and every low-priced machine built. It could not be manufactured under any other system for within several hundred dollars of our price. Write at once and learn when we can make deliveries.

### REGAL "20" FACTS:

MOTOR—22.5 horsepower. Cylinders cast enbloc. Bore 3¼ in. Stroke 4½ in.
COOLING—Water. Our own patented thermo-syphon. Large radiator, highest cooling efficiency.
LUBRICATION—Constant level splash system. Oil ducts keep bearings and pistons well lubricated at all times.
IGNITION—Dual system, High Tension Magneto and dry cells.
CLUTCH—Cone, leather faced with adjustable spring inserts, allowing easy engagement.
TRANSMISSION—Sliding gear, selective type, three speeds forward and reverse. Transmission incorporated in rear axle, the ideal construction for medium weight cars.
AXLES—Rear, semi-floating type. Front, I-beam construction. Hyatt bearings used throughout.
BRAKES—Two internal expanding, two external contracting, operating on rear wheel drums. Largest braking surface of any 20 horsepower car.
WHEEL BASE—100 inches.
TIRES—32x3 in. Quick detachable rims.
TREAD—56 in. and 60 in.
SPRINGS—Semi-elliptic, front; full platform rear springs. All springs equipped with grease cups.
FRAME—Pressed steel, full underslung.
CLEARANCE—Regal "20" has a road clearance of 10 inches.
EQUIPMENT—One pair side oil lamps, one tail lamp, horn, tool kit and complete tire repair kit.
RACY ROADSTER MODEL—Two-passenger roadster. Large gasoline tank back of seats.
WEIGHT OF CAR—1,250 lbs.
PRICE—$900.00 with standard equipment, including magneto.

## REGAL MOTOR CAR CO., Detroit, Mich.




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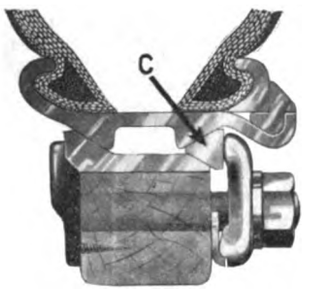
# The Up-to-Date Equipment of Up-to-Date Cars

# "Firestone"

## Quick-Detachable DEMOUNTABLE RIMS

## To Carry Your Spare Tires Inflated, Ready for Instant Use

These rims are growing in popular use and favor faster than any others. They are already in use by practically all progressive automobile manufacturers, the following of whom authorize us to publish their names in this connection :




The clamping ring (C) comes off the wheel along with the rim and tire.

No wedges to pry out—no hammering—nothing to rust and stick fast. No mechanism to study out—nothing to get out of order.

This is the easiest-understood and surest-operating of all demountable rims.




**The Acme Motor Car Co.**
**American Locomotive Co.**
**The Bartholomew Co.**
**The Berkshire Car Co.**
**B. C. K. Motor Car Co.**
**Chadwick Engineering Works**
**Chalmers Motor Co.**
**Coates-Goshen Mfg. Co.**
**Cole Motor Car Co.**
**Corbin Motor Vehicle Corp.**
**Croxton-Keeton Motor Co.**
**Fal Motor Co.**
**Inter-State Automobile Co.**
**Marion Motor Car Co.**
**Matheson Automobile Co.**
**Mercer Automobile Co.**
**Moline Automobile Co.**
**Moon Motor Car Co.**
**Mora Company**
**National Motor Vehicle Co.**
**Owen Motor Car Co.**
**Packard Motor Car Co.**
**Palmer & Singer Mfg. Co.**
**The Pope Mfg. Co.**
**Premier Motor Mfg. Co.**
**Pullman Motor Car Co.**
**Selden Motor Vehicle Co.**
**Simplex Motor Car Co.**
**Speedwell Motor Car Co.**
**Springfield Motor Car Co.**
**Staver Carriage Co.**
**Studebaker Automobile Co.**
**Stuyvesant Motor Car Co.**
**E. R. Thomas Motor Co.**
**Velie Motor Vehicle Co.**

The Firestone rim takes any make of quick detachable clincher tire. It completely avoids the lug or staybolt nuisance of other demountable rims and makes easy work of repairing the tire on the loose rim.

After your spare inflated tires have all been used up, you can still change tires with the Firestone rim. Leave the rim on the wheel and operate the quick detachable rim independently of the demountable feature.

**Please write for full information**

## THE FIRESTONE TIRE & RUBBER COMPANY

**America's largest exclusive tire makers**

**AKRON, OHIO and all principal cities**


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Great Western FORTY

# Facts You Ought to Know— About the Car You're Sure to Buy

"WAIT until they get cheaper"—
"Yes, like bicycles did."

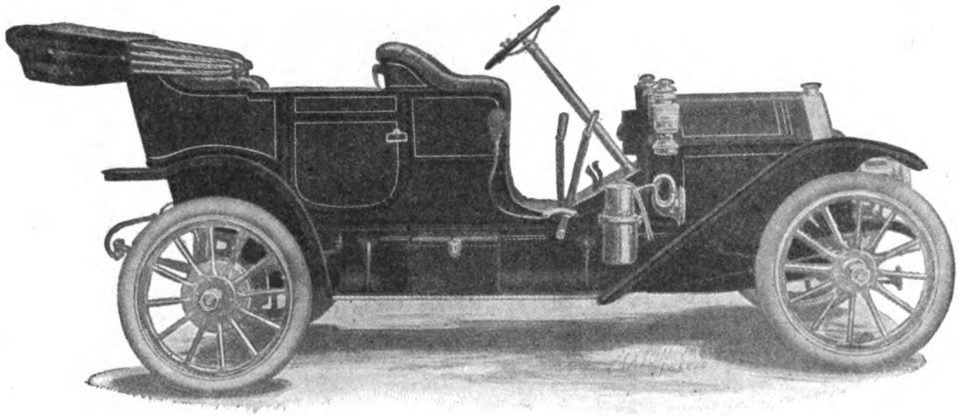
Did you ever carry one end of that conversation when discussing automobiles?

You know you have—

Automobiles **have** become cheaper, "like bicycles did"—and for the same reason—honest competition.

You can buy automobiles today for so little money that you are instinctively suspicious of the quality—just as you can pay so much for a car that the price itself deems a guarantee of quality.

Somewhere in between is the car of quality at a logical price—based on cost of manufacture, plus selling cost, and a fair profit to the maker.



That is the basis of the price of the Great Western "40" and it gives a dollar of automobile value for every dollar of price. It is the car you want at the price you want to pay.

You can buy a larger car (if you wish to seat more than five)—you can buy more horsepower—if its possession is worth the cost to you—you may be as extravagant as you like, but you can't get a stronger, more reliable, speedier, or more beautiful car at any price—

If prices have been too high that fact need worry you no longer—for in the Great Western "40" you get all that you can get in any car, regardless of price or pretentions.

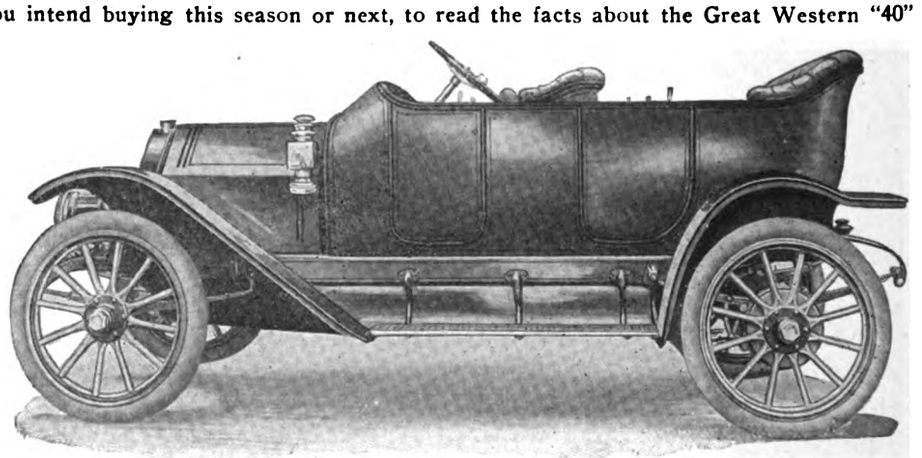
With an extensive plant equipped with the most modern machinery and metal-working tools; with an experience of 15 years in building gasoline motors up to 500 horsepower; with the full force of skilled workmen trained in the niceties of engine building, we entered the automobile field with no false notions as to the actual situation.

The Great Western "40" is the result of our determination to build as good a car as could be built—to be sold at half the then prevailing prices. The 1911 models are ready for delivery.

Our record in the Glidden tour proves the quality of the Great Western "40"—proves conclusively that the big all purpose car at a fair and logical price has arrived—while our sales show it is here to stay.

## These Facts Are Worth Money to You

It will be worth your while, whether you intend buying this season or next, to read the facts about the Great Western "40"—the $1600 car that stood the terrible trial of the 2,851 mile Glidden Tour, finished in Chicago with the best of them, than won the Pittsburg Hill-Climb and then captured the Chancellor and Lyons perpetual trophy against cars selling for double.



Back along the terrible roads of muck and cobble—in heavy swamps—at the foot of steep hills—in desert sands—all of which the Great Western had safely negotiated, were strewn the wrecks of cars costing up to twice as much as the "40"—unable to stand the hard conditions of the roads and the time requirements of America's Classic automobile event.

This is merely an indication of the sturdiness of this grand car.

The numbers in daily use in town and country are further evidence of the reliability you must insist upon if you wish satisfaction from any car.

**Tells in Cash.** This reliability means freedom from repair bills—It means your cost of upkeep is confined almost entirely to gasoline and lubricating oils. Your tire expense is low because of lightness, and because of the special springs, general construction and a steady motor. Not only is the purchase price within your reach, but the cost of upkeep and the assurance of long life for your "40" makes it the most economical car on the market today.

## Great Western Automobile Company

**PERU, INDIANA**


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# At Last, A Standard Car— At Half the Standard Price

Great Western FORTY

A GUARANTEED CAR. The Great Western "40" is a **guaranteed car because** we make it ourselves. We know the quality of material and workmanship that enters into its construction. We are betting on a sure thing when we give you our broad guarantee.

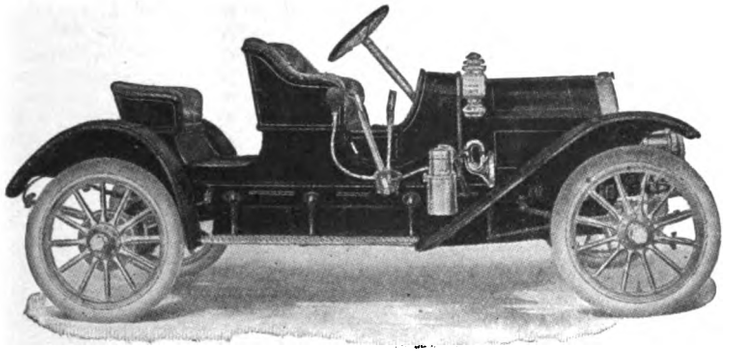
With ample reserve power over and above the rated 40 H. P. we have the added advantage of lightness which means an absence of tire troubles astounding to the man who has driven a heavy "pounder"—

Except for the cylinders, pistons, fly wheel and exhaust manifold not an ounce of cast iron is used—

The most costly—(because the lightest, strongest and most durable) aluminum, steels and bronzes are used for all other parts.

Simplicity of construction and a refinement of design; elimination of many parts found on less reliable cars—all tend to give the Great Western the strength, stability and reliability for which it is noted—and also help to make the low price possible.

**Examine the Motor.** The motor is of the long stroke, foreign type, such as is found on the costliest cars in the world. It has no superior in the American market. Its development of horsepower plus is the result of our 15 years experience in building gasoline motors up to 500 horsepower, and in having the men and machines to carry out our engineer's plans—right.



Great Western Cylinders are ground to an exactness registered by the micrometer as one thousandth of an inch —human hands can not achieve this exactness. They are of soft gray iron—the pistons are of the same metal—contraction and expansion is equal in cylinders and pistons.

Cylinders are slightly offset to increase the efficiency of the driving thrust. This is a feature usually found on the highest priced cars only.

The crank shaft has five nickel die cast bearings with total bearing surface of 14½ inches—not two bearings as in low priced cars. The drop forged special steel crank will keep its alignment and cannot break.

In the refinement of the various parts the Great Western Motor leads all others. Raise the hood of a "40" and you will understand.

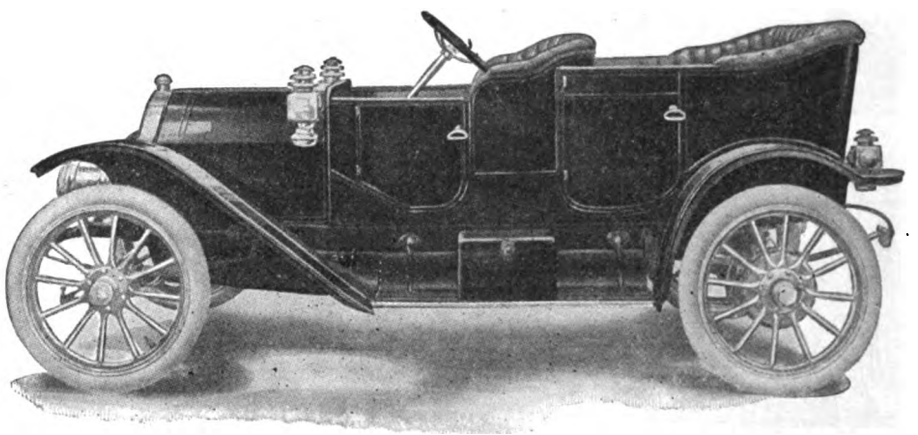
The engine is the simplest made—all the confusing mass of valves, cams, springs, pipes, wires, etc., which you see on most cars—have been so reduced in number that your first glimpse under the hood of a "40" will prove a revelation.

**Send for Complete Specifications.** There is not space here to go into the details of every part of the car. Some of them, however, we will describe briefly: Nickel steel gears, easily meshed, are used in the transmission. This is of the selective type —three speeds forward and reverse. The numbers in use prove that it cannot be surpassed for long life or ease of operation.

**Other Parts—Important**—The front axle is a drop forging of special nickel steel. The rear axle is of the semi-floating type —its worth was demonstrated in the road punishment of the Glidden Tour.

**Brakes**—Internal expanding and external contracting—are unusually large and effective—another point in favor of the "40" on the Tour. Wheels are of the artillery type with 34 x 3½ inch quick detachable rims.

**Handsome Exterior.** The grace of design—the pleasing lines of the "40" bodies are carried out in the best of selected materials. We guarantee the finish to be equal in appearance and durability to the costliest car made. The equipment includes every road convenience—every part is built for service—nothing is slighted—nothing considered of too little importance to have our best attention. The result is the "All-Purpose" Car—for boulevard or highway—as quiet and sweet running as any car you will meet in a day's run.



In buying a Great Western "40" you are saving money—securing a reliable car —a well-built car—a car with an unequaled power plant and a record and guarantee back of every feature claimed for it.

Let us send you full particulars and arrange for a demonstration.

We have some territory open to dealers. A splendid business proposition for live men, for the Great Western "40" sells itself upon demonstration.

Notice the line illustrated.

In addition we have a demi-tonneau body that is attracting much attention.

Use coupon or write today.

## Great Western Automobile Company

**PERU, INDIANA**

232

**Great Western Automobile Co.**
**PERU, INDIANA**

Send by return mail information concerning:

Your motor cars.....

Your proposition to dealers.....
Mark with cross X

Name .....

Address .....

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E-M-F "30"
Flanders "20"
AUTOMOBILES
are guaranteed
for one year

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# The reputation of these men make the CHARACTER of the Velie 40

You are cordially invited to painstakingly investigate the

**VELIE PERSONNEL**
**VELIE FACTORY AND ITS EQUIPMENT**
**VELIE AUTOMOBILE**

That you may be convinced that the Velie Motor Vehicle Co. has a permanent and legitimate license to build a superior car at a minimum cost even though no tribute has been extorted for the privilege of its automobile existence.

## PERSONNEL.

The men whose names appear below are, by inheritance, tradition, experience and capital, qualified to solve manufacturing problems however difficult, correctly and accurately, and in a manner which will surely conserve the interests and the pocketbooks of their customers.

W. L. VELIE—Pres. Velie Motor Vehicle Co., Moline, Ill.; Pres. John Deere Plow Co., Omaha, Neb.; Vice Pres. Deere & Co., Moline, Ill.; Pres. Velie Carriage Co., Moline, Ill.; Vice Pres. Moline Wagon Co., Moline, Ill.; Pres. Velie Engineering Co., Moline, Ill.

CHAS. D. VELIE—Vice Pres. Velie Motor Vehicle Co., Moline, Ill.; Sec. & Treas. Deere & Webber Co., Minneapolis, Minn.; Director, Deere & Co., Moline, Ill.; Director, Northwestern Nat'l Bank, Minneapolis, Minn.; Vice Pres. Velie Carriage Co., Moline, Ill.

STEPHEN H. VELIE—Vice Pres. Velie Motor Vehicle Co., Moline, Ill.; Pres. Velie Saddlery Co., Kansas City, Mo.; Pres. Fort Smith Wagon Co., Fort Smith, Ark.; Sec. & Mgr. John Deere Plow Co., Kansas City, Mo.; Vice Pres. Velie Carriage Co., Moline, Ill.; Vice Pres. Marseilles Mfg. Co., Marseilles, Ill.; Director, Southwestern Nat'l Bank, Kansas City, Mo.

GEO. N. PECK—Director Velie Motor Vehicle Co., Moline, Ill.; Pres. Marseilles Mfg. Co., Marseilles, Ill.; Sec. & Treas. John Deere Plow Co., Omaha, Neb.; Director, Deere & Mansur Co., Moline, Ill.; Director, Velie Carriage Co., Moline, Ill.

CHAS. C. WEBBER—Pres. Deere & Webber Co., Minneapolis, Minn.; Vice Pres. Deere & Co., Moline, Ill.; Vice Pres. Moline Wagon Co., Moline, Ill.

MAJOR L. M. FULLER—Sec. & Mgr. Velie Motor Vehicle Co., Moline, Ill. Formerly of the Ordnance Department of the U. S. Army. Designer of much of the modern war material in use by our own and foreign governments.

## THE FACTORY.

The home of the VELIE is a reinforced concrete building, 420 feet long, five stories high, 95 feet wide on the basement floor and 80 feet wide on the other stories. The whole plant is sprinkled and is filled with most up-to-date labor-saving machinery devised.

**THE VELIE IS NOT AN ASSEMBLED CAR.** We do not manufacture in our own plant tires, electrical equipment, speedometers, horns, lamps, etc. We do manufacture, however, in our own factory, everything that any one else does, with the exception of transmissions, axles and steering gears. We use the Timken axle, which is the standard for the United States. The Brown Lipe Transmission has no equal. The Gemmer steering gear is probably the best manufactured. Each of these articles is built by specialists. Not one of our competitors in any class can show better material than the three articles above referred to, specially designed and manufactured for our car.

Our new motor plant of reinforced concrete is well along and will give us 200,000 feet more of floor space. These factory buildings have been built at an expense of over half a million dollars and will endure for all time. They are a fair indication of the stability of the Company.

## THE CAR—Specifications.

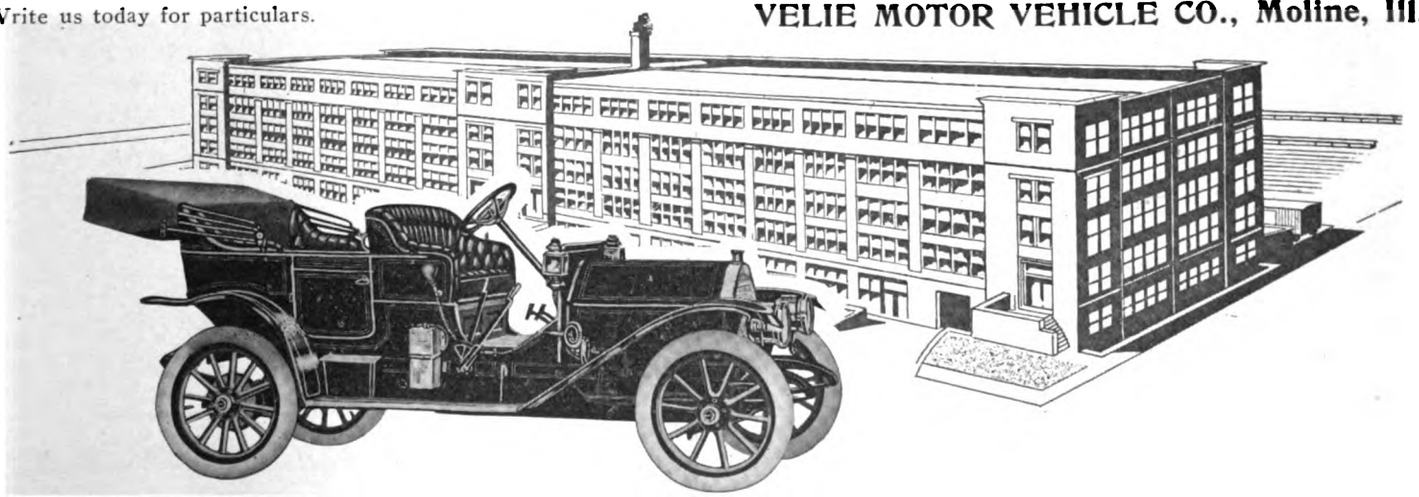
MOTOR—Bore 4½ inches; stroke 5¼ inches. Four cylinder, 4 cycle L type, cylinders cast in pairs with integral water jackets, crank shaft offset ⅛ of an inch. Latest improved foreign design of large bearing roller tappets.
TRANSMISSION—Brown Lipe selective sliding gear, three speeds forward and one reverse mounted on four sets of Timken short series roller bearings, designed and manufactured especially for us. Gears 3½ % nickel steel.
DIFFERENTIAL—Brown Lipe bevel gear on Timken Roller Bearings. Gears of Chrome Nickel Steel.
FRONT AXLE—I beam single piece, heat treated drop forging, of Timken manufacture. Wheels on Timken roller bearings.
REAR AXLE—Timken full floating type double rod construction.
CLUTCH—Dry disc. All parts readily accessible, and replacement cost a minimum.
IGNITION—Splitdorf magneto with non-vibrating coil as the primary and Atwater-Kent for secondary.
LUBRICATION—By gear pump; gear driven. Our patent sight feed is a feature found on no other car. All moving parts and bearings are provided with compression cups or spring oilers.
BRAKES—Double contracting foot brakes and double expanding hand brakes.
SPRINGS—Front semi-elliptic 38 inches long, 2 inches wide. Rear ¾ inch scroll; 46 inches long and 2 inches wide.
RADIATOR—Mercedes type with hard rubber filler cap.
WHEEL BASE—115 inches. Gear ratio, 3 to 1; 3½ to 1.
WHEELS—34 inch Artillery type of selected second growth hickory.
TIRES—Hartford or Firestone, 34 x 4 inches on Hartford Q. D. rims.
STEERING GEARS—Of Gemmer manufacture.
STEERING WHEEL—Hard rubber with corrugated finger grips; 17 inches in diameter.
COOLING—By gear driven centrifugal pump.

**TO THE CONSUMER AND TO THE DEALER** we wish to say that the policy of this Company is to secure a lasting place in the automobile manufacturing industry, the accomplishment of which aim carries necessarily with it, modest profits, closest attention to details, fair and liberal treatment of customers and a broad guaranty unselfishly interpreted.

We cordially invite interested buyers to visit our plant, where every courtesy will be extended and every facility offered to thoroughly post them as to the merit of our claims for recognition and superiority.

**WE HAVE A SPECIAL PROPOSITION** to the best dealer in every town and city where the "Velie 40" is not now represented. Write us today for particulars.

**VELIE MOTOR VEHICLE CO., Moline, Ill.**



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# McKim Copper Asbestos Gaskets

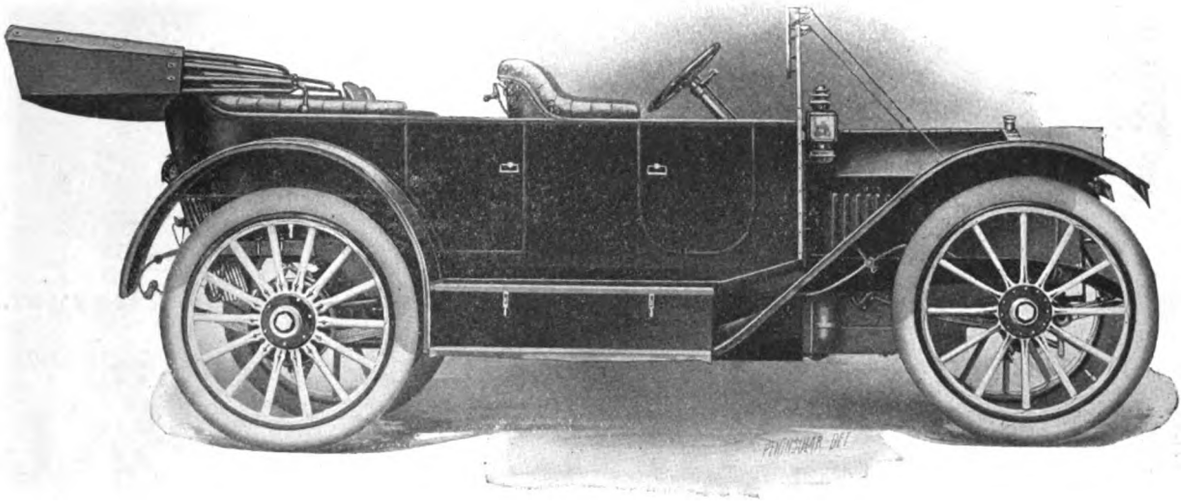
¶ The standard gasket with automobile engineers, ALWAYS, because they are the only reliable packing for gas engine flanges. Are made solely by

## McCORD MFG. CO.

Detroit

ALL SIZES AND SHAPES IN STOCK
IMMEDIATE SHIPMENTS—LOWEST PRICES


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# "The 1911 Owen"

## TO DEALERS:

If the OWEN differed from *other* cars only in *minor details*, it would have small claim to the interest of experienced, discriminating motorists.

But the OWEN is *distinct* from other high-grade cars in the fact that it embodies *more advanced* ideas of motor car construction than *all other 1911 models combined*—it is *literally* "two years ahead of the times."

Because of its years-in-advance features making it a car actually *without competition*—because of the beauty of the lines—its superior qualities as a hill climber and hard roads car—because of the *thorough familiarity* of the *motoring public* with the OWEN as result of the extensive advertising in national publications and demonstrations, the OWEN has *exceptional* advantages as a sales proposition that must strongly appeal to progressive dealers.

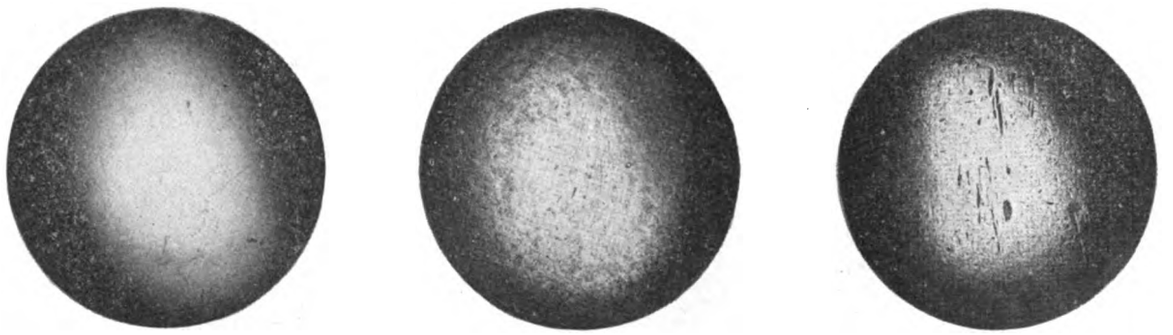
This company has an attractive proposition for the right kind of dealers in open territory. Ask for this proposition.

**GENERAL SPECIFICATIONS:**

PRICE $4,000.00; Body, straight line design with high front doors; Seats, six; Wheel base, 120 inches; Gauge, 56 inches; Tires, 42 x 4 inches all around; Steering, worm and nut; Brakes, rear wheel, internal expanding, external contracting; Springs, front semi-elliptic, rear three-quarter elliptic; Horse Power, 50; Bore, 4¾ inches; Stroke, 6 inches; Cylinders, four cast in pairs; Valves, right hand side; Cooling, water; Ignition, high tension with battery auxiliary; Current Supply, Bosch dual; Lubrication, Splash system, constant level, pump maintenance; Clutch, leather face cone; Change gear control, center control; Speeds, 2 to 60 miles per hour; Drive, shaft; Weight, complete, 3,400 pounds.

**OWEN MOTOR CAR COMPANY, 1620 E. Grand Boulevard, Detroit, Mich.**

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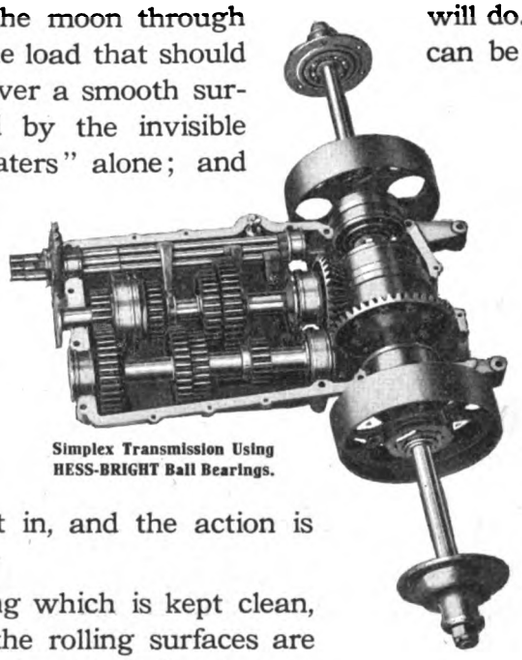


**Ball Surfaces of Different Makes Enlarged 58 Diameters. The Left Hand One is a HESS-BRIGHT.**

# Other things being equal
# THE POLISH IS THE BALL

You know how steel tires will wear away freshly-cut paving blocks. All the load is concentrated on a few points, which crush and crumble and abrade under the pressure.

A ball bearing, if you give it the chance, will wear in just the same manner. Balls and races smooth to the eye may look under a strong magnifier like the moon through a telescope. The load that should be distributed over a smooth surface is carried by the invisible ridges and "craters" alone; and the latter slowly crumble, no matter how hard the steel or how clean and well lubricated the bearing. Let a little dust get in, and the action is accelerated.



Simplex Transmission Using HESS-BRIGHT Ball Bearings.

A ball bearing which is kept clean, and in which the rolling surfaces are file-hard, glass-smooth and not overloaded—such a bearing will last many years. But ordinary methods of manufacture will not produce such a bearing.

It is a curious and important fact that, the harder the steel, the higher the polish it will take. Ordinary steels—even very good steels—are not hard enough to take the absolutely mirror-like polish which alone will do. And to get a steel which can be file-hardened without becoming brittle is yet more difficult!

HESS-BRIGHT Ball Bearings are the result of many years of endeavor, using the hardest and toughest alloy steels known to science, and developing manufacturing processes which achieve accuracy of form, mirror-like smoothness of surface, and resistance to shock, far beyond anything hitherto considered necessary in the ball bearing art.

THE HESS-BRIGHT MANUFACTURING CO.
2109 Fairmount Avenue
PHILADELPHIA, PA.

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# Honor Bright—

Isn't it a mean job to have to get out in the mud and "crank 'er up?"

Most owners hate it.

Some of them keep on doing the ancient and laborious act—as though cranking were necessary.

## WINTON SIX

owners know it isn't necessary, for the Winton Six has a self-cranking motor.

Push a button on the dash and the motor starts.

No starting crank in front—it's under the seat with the tools.

The Winton Six has the only self-cranking motor.

No clock springs or complications.

Just air, and one single moving part.

Simplest thing you ever saw.

And not used on other cars, because it is our invention and we give Winton Six owners the exclusive right to its use.

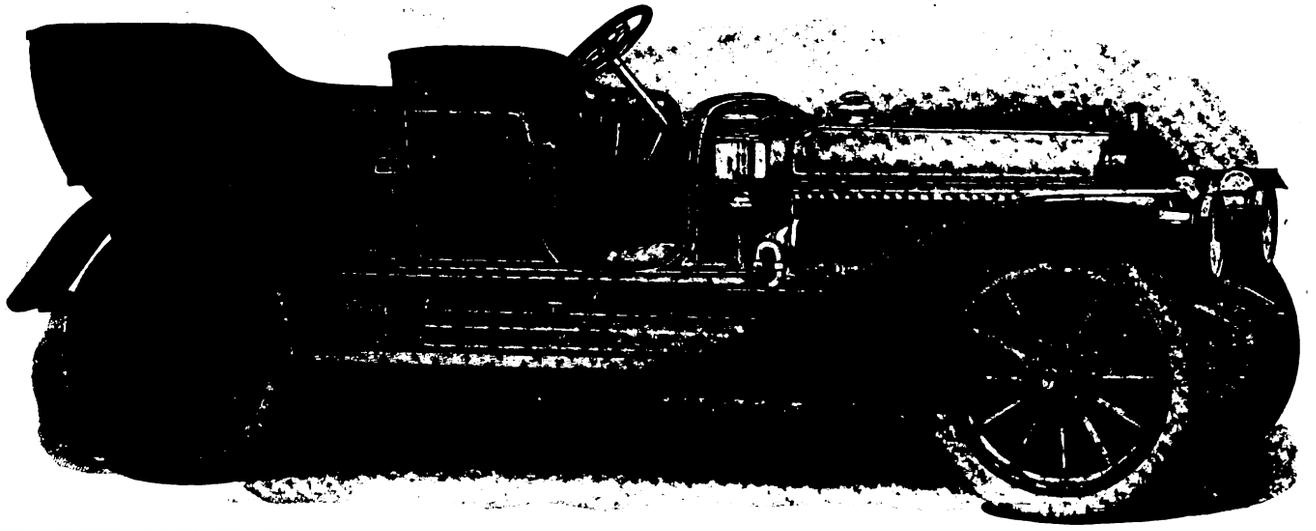
See the Winton Six self-cranking motor start on air, and at the same time see a car that is a car.

Costs $3000. You'll have to compare it with cars costing $4000 to $6000 to find one near its class.

*Write for 1911 literature.*

THE WINTON MOTOR CAR. CO., 426 Berea Road, Cleveland. O.

Licensed under Selden patent.



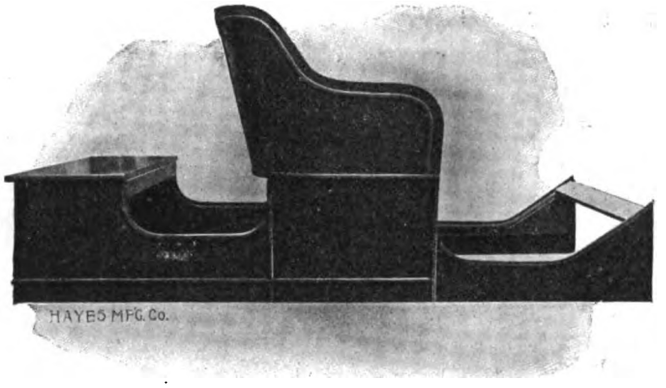

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# THE THREE GREAT LINKS

# Our Product
# Our Factories Our Name

OUR EQUIPMENT IS VERY COMPLETE FOR THE MANUFACTURE OF:

Metal Bodies
Fenders
Fender Irons
Hoods
Motor Pans
Tanks
Dashes
Tool and Battery Boxes
Sheet Metal Parts and Forgings




TWO LARGE PLANTS ENTIRELY SEPARATE, GIVING PROTECTION IN CASE OF FIRE. CAPACITY FOR PARTS FOR 5000 CARS PER MONTH.

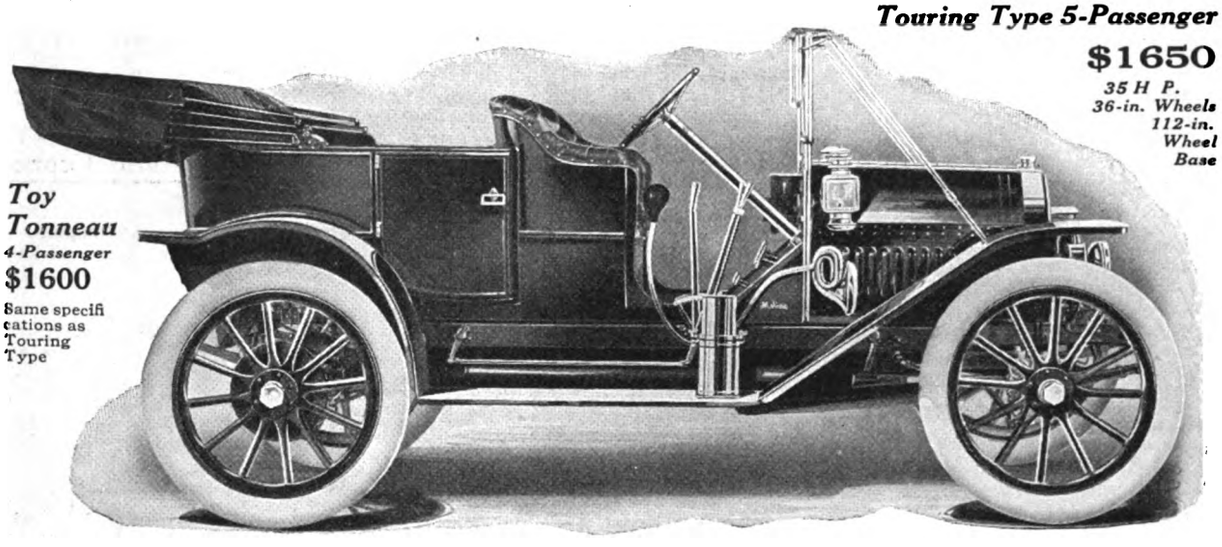
## HAYES MANUFACTURING CO.
DETROIT, MICHIGAN


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# Are You Wondering Which Car Made The Best Record in the Glidden Tour?

Satisfy yourself by looking at the table below and noting what car outpointed every other car in this "Record Breaking Run."

*Touring Type 5-Passenger*
**$1650**
*35 H P. 36-in. Wheels 112-in. Wheel Base*



*Toy Tonneau*
*4-Passenger*
**$1600**
Same specifications as Touring Type

### *Did not Carry a Single Extra Part*

Here is positive proof that the 1911 Moline is absolutely dependable. Think of venturing on a 2850 mile trip without carrying a single extra part.

No other car but the Moline dared to do this. If you want this kind of service, then the 1911 Moline is

### Score of Eleven Cars That Finished

| No. | Name | Horse Power | Tech. Exam. | Total Penalties | Price |
|---|---|---|---|---|---|
| 100 | MOLINE | 35 | 7 | 19 | $1600 |
| 107 | Competitor | 30 | 8 | 51 | 1575 |
| 102 | MOLINE | 35 | 2 | 64 | 1600 |
| 1 | Competitor | 60 | 84 | 93 | 3500 |
| 5 | Competitor | 30 | 77 | 116 | 1500 |
| 7 | Competitor | 30 | 149 | 208 | 1525 |
| 101 | MOLINE | 35 | 3 | 481 | 1600 |
| 2 | Competitor | 40 | 86 | 806 | 2600 |
| 103 | Competitor | 40 | 660 | 2042 | 2500 |
| 10 | Competitor | 45 | 392 | 2247 | 2500 |
| 15 | Competitor | 40 | 269 | 2414 | 2250 |

### *Did Not Touch a Single Tool*

The fact that the winning ***Moline*** did not touch a single tool during the entire trip proves that this car will give the purchaser that reliable, trouble-proof satisfaction which alone is necessary to make motoring the most enjoyable pleasure in the world.

## The Car For You to Buy

It is the best for you because it has shown itself able to stand up under the severest conditions. A car that can endure the gruelling tests of this remarkable Glidden Trip and come out of it with a record that wins, is the car that you can depend upon to carry you wherever you want to go.

## The Car For Dealers To Sell

Our Glidden Tour record has set everyone to talking about the ***1911 Moline.*** Everyone wants to see it and seeing it they will buy. Some desirable territory is still open for dealers who write quickly for terms and allotment for 1911 trade. There is money in selling a car that wins.

## Send for Our 1911 Catalog No. 61

It will give you the technical description of all the ***Moline's*** fine equipment and perfect mechanism. You will be convinced of the truth of our claim that you can pay more for other cars but you cannot get better value than in the ***1911 Moline.***

**Moline Automobile Co.** Licensed Under Selden Patent **61 Root St., East Moline, Ill.**

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# The Overland See What Overlands Give for the Money The Overland

**Overlands sell at a dozen prices, from $1,000 up. But don't measure the car by the price you pay, compared with others' prices. For remember that Overlands outsell all others largely by underselling.**

$1,000 seems a low price for a car. It suggests some cars which are under-powered and under-sized—that are toy-like imitations of real motor cars.

But the $1,000 Overland is a 25-horse-power car. It has a 102-inch wheel base. Its possible speed is 50 miles an hour.

In exhibitions it carries four passengers up a 50 per cent grade, starting from stand-still. We have run it 7,000 miles, night and day, without stopping the engine. Many an owner has run it 10,000 miles without making any adjustment.

It is this $1,000 car which is used in the U. S. mail service, where each does the work of three horse-drawn vehicles. They have made their daily trips for a year and a half, in all sorts of weather, without a moment's delay. They have made those trips in snow so deep that all other traffic was stopped.

It is this $1,000 car on which we fit our light delivery body. These delivery cars carry 800 pounds and two passengers, and the veriest novice must be able to always keep them going.

It is our $1,000 car which numerous concerns now supply to their road-men. They enable one salesman to do two salesmen's work.

## An Ample Car

The $1,000 Overland will go as fast as you ever care to go. It will climb any hill with a road up it. It will last as long as any car at any price.

The power is sufficient for any usual requirement. Yet one of these cars in a test has run over 28 miles on one gallon of gasoline.

This car—like some of our higher-priced models—operates by pedal control. One goes forward or backward, fast or slow, by simply pushing pedals. A child can master the car in ten minutes. A woman is now driving one of the cars from the Atlantic to the Pacific.

Many a millionaire owns a $1,000 Overland, because it is so utterly simple, so trouble-proof, so easy to handle for the man who drives his own car.

The price includes gas lamps and magneto. The car complete with toy tonneau costs but $1,100. In size, style, power and capacity, it will bear comparison with many cars selling up to $2,000.

## Higher-Powered Cars

The 40-horsepower Overlands, with 112-inch wheel base, cost from $1,250 to $1,500, depending on style of body, etc. Heretofore these prices have indicated lower-powered, smaller-sized cars. But these are big cars, with all the style that any price can buy. And many a car costing up to twice the price has a lesser power.

The Marion-Overland—prince of the line—sells for $1,850. But this car is a racer. It is the car which we use to win contests against some of the costliest cars. It has outshone cars at twice the price in numerous great events.

There is pride in owning such a car. There is satisfaction in feeling that you have the best you can get. For the Marion-Overland is the utmost that our best engineers can produce.

But judge none of these cars by the price alone, compared with what others ask. For it is easy to prove that no other car gives what the Overland gives for the money.

And don't get an Overland which far exceeds your requirements, simply because it is cheap.

## Overland Economy

We make more cars than any other maker, and we make them by modern automatic machinery. Over $3,000,000 has been invested to make Overland cars economically.

We devote one factory to one model alone. Every machine is adapted to it. Every man is trained in doing one thing.

In these ways we have cut our costs twenty per cent in the past year alone. Smaller makers with lesser facilities cannot compete with these cars.

So don't judge what you get in an Overland by comparing our prices with others. Send us this coupon and we will mail full information about these various cars. Then you can compare them, part by part, with any other cars you know.

We have dealers in 800 towns.

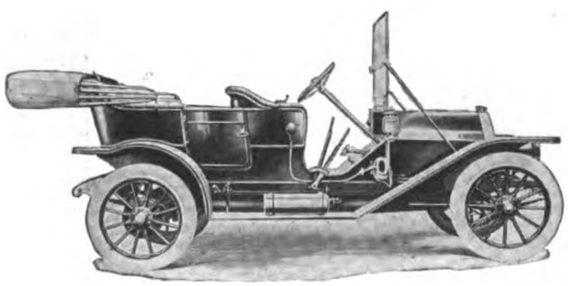
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**The Willys-Overland Company**
**Toledo, Ohio**

*Please send me information about*
*Passenger Cars* ☐ *Delivery Cars* ☐
*The Marion-Overlands* ☐

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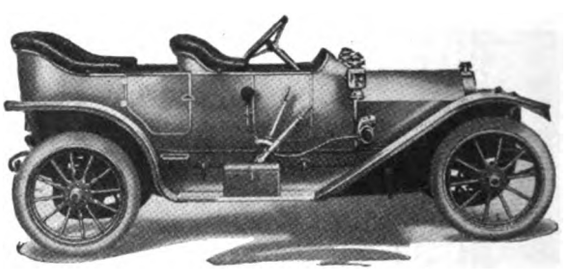
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Other Overland models cost $1,300, $1,400 and $1,500, according to style of body, etc.

The Overland

Licensed Under Selden Patent



The Marion-Overland, with touring body, costs $1,850. Also made as racing roadster, as town car and with torpedo body.

(106)

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THE MOTOR WORLD

Volume XXIV. New York, U. S. A., Thursday, August 25, 1910. No. 8

## TELLS OF BIG TRADE IN TEXAS

### Accessory Dealer from Lone Star State Dilates on Conditions There—Second Speeds Not Needed.

All the enthusiasm which some of the automobile manufacturers already have shown for Texas as an automobile market and all that they may show in the future, in the way of establishing either selling or factory branches in the Lone Star State, is more than justified by the facts of the situation, in the opinion of R. A. Bond, who, as the secretary of C. L. & Theo. Bering, Jr., Inc., a firm which handles automobile accessories on a large scale in Houston, is visiting "the North" to buy goods and incidentally spread some of the "hot old Houston" doctrine. He declares that without personal investigation, few people in the trade realize the extent or vigor of the automobile business as at present conducted in Texas.

"In Houston," he declares, "where we have a population of about 100,000 people, there are over 1,300 automobiles, a proportion which I do not believe is equaled in any other city of the country. The money we are taking in over the counter every day for accessories would be unbelievable to some firms in the North who regard themselves bigger than we are, and the automobile, tire and accessory dealers in the Texas cities, almost without exception, are making money hand over fist.

"The automobile and the good roads movement are helping each other a lot. Right around our city over $1,500,000 is being spent in road improvements, for shell roads which pack harder and improve the more they are used. Texas, too, is a state where the second speed is never used. There are no grades for which the second speed is suitable, the whole state, like the people themselves, being 'strictly on the level.'

"Crops are fine in the Southwest and money is plentiful and easy. Texas itself is so big that even if a local crop failure or financial depression occurs in one part of the state, the people in the Texas cities hardly need pay any attention to it."

### Changes in De Tamble's Selling End.

Changes in the affairs of the De Tamble Motors Co., of Anderson, Ind., have resulted in the transfer of the offices of the Car Makers' Selling Co., Chicago, Ill., to Anderson, where the latter company will conduct its business relating to the sale of the De Tamble car under the name of the De Tamble Motors Co. All contracts and obligations of the Car Makers' Selling Co., which has been handling the De Tamble output, will be continued and taken care of by the De Tamble Motors Co. For the territory west of Denver, Col., and including the Republic of Mexico, the distribution will be handled by the E. S. De Tamble Co., exclusive Pacific Coast distributor, which at present has its headquarters in Anderson, Ind., but which after October 1st will be located in Los Angeles, Cal.

### Long Arm System in Trouble.

Two attachments aggregating $3,090 against Stewart H. Chisholm, president of the Long Arm System Co., Cleveland, O., in favor of the Crucible Steel Co., have been served on the Knickerbocker Trust Co. of New York. One for $2,340 was obtained in the Supreme Court on the ground of non-residence, on a claim he failed to pay for merchandise delivered to the Long Arm System Co., and the other, for $750, was obtained in the City Court for the alleged non-payment of a note of the company for that amount.

### Diamond Opens Paris Branch.

A branch in Paris, France, has been opened by the Diamond Rubber Co., Akron, Ohio, for the supplying of Diamond tires to American motoring tourists and to the French trade. It is under the management of Keith L. Goode, an American who has resided in Paris for 15 years and who is a brother of the manager of the Packard branch in Paris.

## SELLING BUICKS AT LOW PRICES

### Dealers' Discounts to Retail Buyers of "Slightly Used" Machines—How the New York Branch Does It.

Bargain inducements for the disposal of old cars in the way of demonstrators or machines with special bodies are by no means rare on the part of factory branches, without creating the objection that the branches are cutting prices on the lines they represent, but the Buick Motor Co.'s branch on Broadway, New York City, has developed the "bargain" feature to such noticeable proportions as to invite attention. It has been known for some time that special inducements, involving cars at prices considerably under list, are being held out at the New York store to prospective buyers, but recently the bargains have attained a remarkable continuity and volume of flow and have borne a close resemblance to the regular factory product as handled by agents at list prices.

Visiting the Buick's much-advertised "Wednesday sale" this week, a Motor World man found that the company had employed the term "slightly used cars" advisedly, the characterization being found to be exceedingly literal. Indeed, the impression that the "used" cars examined were virtually new in the ordinary acceptance of the term, was confirmed by the statement of a salesman that none of them had been driven more than 10 miles or "just enough to try them out." "But after that," he added, "we of course could not offer them as new cars."

The interview further developed the point that the Buick bargain system has placed the ordinary buyer in almost the same position as any uptown garageman who might desire to turn a Buick sale. The branch, it was explained, having no local agents to protect, can sell at any price it chooses. Hence its ability to grant a 15 per cent. inducement to the bargain

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hunter on any new car, or, in the case of the "used" proposition, nearly 20 per cent.

When the Motor World man called on Wednesday to see "Today's bargain," he was told that limousines were on the day's bargain list, but that a very fine roadster also was to be had at a sacrifice. In a morning paper, "10 No. 10 Buicks" had been offered for "quick sale." Subsequently it developed that not only this roadster, but also a small touring car with detachable tonneau was to be slaughtered. The Motor World man confined his attentions to these two smaller cars. He was told that the bargain price of the single rumble seat roadster was $850, instead of the $1,050 list price.

"Of course," remarked the obliging salesman, "you understand that this is not what you may call strictly a new car. That is, it has been used as a demonstrating car once or twice, but it has not been run more than about 10 miles. In fact, I can guarantee that it has not gone beyond 110th street. That is why we knock off 20 per cent. from the list price."

Asked how it was possible for the Buick company to sell practically new cars for a lower price than an agent would have to pay, the young man became voluble.

"You see," he hastened to explain, "the cars have been used, there is no getting around that, and we can sell used cars for whatever we please. With new cars, of course, it is slightly different. The Buick company has no agents in this city; this is a factory branch, and we can sell at what we please. We will sell you a car for the same price that an uptown garage would have to pay—namely, 15 per cent. off list price—for we don't care for that part of it. It is immaterial to us whether you own a garage or not; we sell you the car at a material reduction off the listed price, and you ought to be satisfied." The discussion then turned to the small touring car with detachable tonneau. This car was plainly marked at $880, complete with top, etc., the list price of the same car with like equipment being $1,150.

"This car has been used as a demonstrating car over a total distance of about 10 miles, just around the neighborhood, and Central Park. We give you this car as the greatest bargain—$270 off the list price, and run just long enough to show its perfect working. We have no 1909 cars here in stock or anywhere on hand. All were sold out long before the end of last season."

### Lisbon Welcomes a Truck Project.

Lisbon, Ohio, is to have a new company, which is to be known as the Lisbon Auto Truck Co., promoted by A. H. Wyatt and W. H. Kitto, of Cleveland. The business association of Libson has arranged to underwrite the local absorption of $25,000 worth of the $50,000 of stock. Kitto has promoted similar projects in the past.

## CHANGES AMONG THE TRADESMEN

**Shifts in Position for Men in the Motor Car and Accessory Industry—Franklin's List of Officers.**

By the appointment of J. E. Walker, former advertising manager of the H. H. Franklin Mfg. Co., Syracuse, N. Y., to the post of sales manager, and other changes in the organization, the list of officers has been altered correspondingly. Under the new arrangement the list of officers is as follows: H. H. Franklin, president; F. A. Barton, secretary and treasurer; T. R. Lippard, general manager; H. B. Webb, comptroller; J. E. Walker, sales manager; J. G. Barker, assistant sales manager; Herbert Hess, manager of the commercial car department; J. N. Alsever, advertising manager.

Resigning the competition worry of maintaining a Chicago agency for automobiles, Joseph F. Gunther, a veteran of the Windy City's automobile row, has given up the Apperson agency and has started a garage at Halfday, Ill., on the main touring route of the district. He will content himself with selling accessories and supplies and garage service.

Louis Geyler, well known throughout the trade and long a dealer on Chicago's automobile row, has been appointed agent of the Hudson car for the Chicago territory. He at present is located at 1532 Michigan avenue, but is shortly to move to the Hudson's new building on the same street, between 25th and 26th streets.

Alexander G. Hendel has resigned as sales manager of the automobile department of Sears, Roebuck & Co., of Chicago, Ill., to join the sales forces of the Bartholomew Co., of Peoria, Ill., which makes the Glide car. He had charge of Sears, Roebuck automobile sales for two years.

Walter F. Winchester, widely known as the winning Pierce-Arrow driver in the 1909 Glidden tour, has severed his connection with the Pierce-Arrow Motor Car Co., Buffalo, N. Y., to become the Pierce-Arrow dealer in Jacksonville, Fla. He will head the Winchester Motor Car Co.

Edward R. Hewitt, of New York, former head of the Hewitt Motor Co., which was absorbed by the Metzger Motor Car Co., of Detroit, Mich., has joined the latter company as a stockholder and mechanical expert. He is a son of Abram S. Hewitt.

George R. Moran has joined the engineering and sales force of Barthel, Daly & Miller, New York City, importers of Schafer ball bearings. He has started on a Western trip, calling on the motor car manufacturers.

J. C. Howell has resigned as assistant manager of the Warner Instrument Co., of Beloit, Wis. He has been appointed advertising manager of the Reed & Barton Co., silversmiths, at Taunton, Mass.

James Bourquin has been made general factory manager for the Paige-Detroit Motor Car Co., of Detroit, Mich. He formerly was a superintendent for the Chalmers Motor Co., of Detroit.

W. O. Rutherford has been appointed assistant manager of sales for the B. F. Goodrich Co., of Akron, Ohio. His activities will be directed largely to the sale of the company's tires.

George T. Briggs has been appointed sales manager for Wheeler & Schebler, of Indianapolis, Ind. He formerly was manager of the company's Chicago branch.

### Wagenhals to Make Three-Wheelers.

Three-wheel commercial vehicles are to made in Detroit, Mich., according to the plans of the Wagenhals Commercial Motor Car Co., which has been formed in St. Louis, Mo., but which is to make Detroit its headquarters. The car which the concern purposes to manufacture is to have a carrying capacity of 800 to 1,000 pounds, weighing 1,600 pounds complete with a 16 horsepower engine. It is designed by William G. Wagenhals, who has invented a number of devices relating to electric railroads.

### Goodrich Plans $10,000,000 Increase.

The B. F. Goodrich Co., of Akron, O., has made plans for a $10,000,000 increase of its capital stock in 7 per cent. cumulative preferred shares. Of this amount $5,000,000 is to be offered to stockholders at par, while the remaining $5,000,000 will be in the form of a 50 per cent. dividend to the holders of the $10,000,000 commonstock now outstanding.

### Hupp Interested in Rotary Valve Car.

The Rotary Valve Motor Co., Detroit, in which R. C. Hupp, the head of the Hupp Motor Car Co., is largely interested, is building a six-cylinder car employing an engine having rotary valves and other unusual features. Mr. Hupp is also a part of the Hupp-Yeats Electric Car Co., which shortly will market an electric coupe.

### Collins Gear Purchases a Plant.

The Collins Gear & Motor Co., of Pittsburg, Pa., is to make automobile axles, gears and motors in a factory which it has purchased at Canonsburg, Pa. The plant formerly was occupied by the Simpson Stove & Mfg. Co.

### Pope Forces in Annual Conference.

The managers and travelers of the Pope Manufacturing Co. are this week holding their annual conference at headquarters in Hartford, Conn.; it will extend over a period of several days.

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## GENERAL MOTORS REORGANIZATION

### It is Near at Hand, According to a Broker's Advices—Buick Factories Resuming on a Reduced Scale.

Negotiations for a proposed reorganization of the affairs of the General Motors Co. are almost completed and the full plan shortly is to be announced, according to a communication which a Chicago stock and bond house, John Burnham & Co., is sending to its customers. The Chicago concern has written to those of its clients who might be interested in General Motors doings, advising them that an announcement may be expected around the first of September and pointing out in a vague way some of the causes that have made General Motors shares decline despite the roseate probabilities of enormous dividends (in stock) which have been presented by the "wizard" of the enterprise. The letter in part is as follows:

"Since the announcement on July 15th last of a proposed reorganization affecting the General Motors Co., many rumors have been circulated as to the terms of the pending deal and the possible result on the price of the company's stock. The general market tone has been very weak and this condition, coupled with the uncertainty of the success of the General Motors Co.'s negotiations, has caused a decline of several points in the bid prices on both common and preferred shares. We are informed from sources which we consider reliable that the new plan is practically closed and that a public announcement of the terms will probably be made before September 1st next."

Reorganization also is being looked forward to with considerable eagerness in Flint, Mich., in relation to the Buick Motor Co. The Buick factories, which when in full operation employ from 15,000 to 16,000 men, started to close down about the middle of last month, and in two weeks from that time every employe of the company was out of work except those retained for inventory and for the necessary clerical, stock and shipping activities. It had been announced by General Manager W. C. Durant that if the shut-down occurred before the first of October the factories could not possibly resume operations before that date. However, the factory manager has announced that 11 of the 14 Buick factories will resume business this week with a total force of 2,000 or possibly 2,500 men, and that during the week an additional force of 1,000 will be added.

### Hudson Holds a Selling Convention.

District sales managers of the Hudson Motor Car Co., Detroit, Mich., gathered at the factory for two days last week to attend the annual convention of the executive officers, salesmen and advertising forces of the concern. The latest wrinkles in automobile salesmanship were expounded by President R. D. Chapin and by E. C. Morse, the sales manager, and C. C. Winningham, the advertising manager. Edward H. Broadwell, the new second vice-president and director of sales for the company, addressed several sessions of the convention, which ended with a dinner and theater party.

### Jewel Makes an Offer to Creditors.

As a means of satisfying its creditors, the Jewel Carriage Co., of Cincinnati, Ohio, which recently went into bankruptcy, is submitting a proposition through a creditors' committee consisting of Elmer J. Hess, C. W. Shipley, C. G. Schultz, Fenton Lawson and W. E. Muench. The offer is 60 per cent. in cash on claims of general creditors under $500, and $300 on all claims above $500, the balance to be paid in automobiles at the list price of $1,850 each. The real estate is to be turned over on a trust basis at a valuation of $100,000, to be administered for the creditors, and will be leased by the company.

### Ford Bond Filed; Injunction Lifted.

An order suspending the injunction against the Ford Motor Co., of Detroit, Mich., pending an appeal to be taken to the United States Circuit Court of Appeals, has been made by Judge Hough, of the United States Circuit Court for the Southern District of New York, coincident with the filing of the required $350,000 bond for the Ford company by the Fidelity & Guarantee Co., in the infringement case brought by George B. Selden and the Columbia Motor Car Co. Judge Hough also ordered that the Ford company have its appeal ready to be heard on November 7th.

### Anhut Successor to Make Fours.

Having dropped the name of the Anhut Motor Car Co. and raised its capitalization to $300,000, the Barnes Motor Car Co., of Detroit, Mich., has completed its reorganization, with William M. Walker as president, Charles E. Henkel as secretary and treasurer, and Harry C. Barnes, from whom the company now takes its name, as factory manager. The creditors have granted the company 18 months extension, and it will undertake the manufacture of a four cylinder car at $1,400 in addition to a six cylinder model at $2,250.

### Canadian Ford is Expanding.

The Ford Motor Co., Ltd., of Walkerville, Canada, located on the river front opposite Detroit, Mich., has commenced the erection of a $30,000 addition to its factory. The structure will be of reinforced concrete, 90 x 70, two stories high and a basement. It will have a floor space of 20,000 square feet.

## MOON LEAVES THEM IN DARKNESS

### Investors and Creditors Seek Missing Chicagoan—Get Cheerless Report on His "Revolutionizing" Transmission.

After giving up their money to an enterprising promoter known as G. Frank DeWitt Moon, who pictured prospects of the fortunes to be made in backing his new transmission system for automobiles, a number of Chicago investors, acting with an almost equal number of creditors, have endeavored to discover how badly they are stuck, and their discoveries indicate that it is about 100 per cent. The Moon in question is not shedding any light that will be of assistance to them, as he has disappeared, but the "moonstruck" victims think that they have learned the worst without his aid.

With a patent on his transmission, Moon proposed to "revolutionize" automobile construction and to let a few of his fellow men get rich in helping him do it. He got control of some land and started to build a pretentious factory. When things grew too warm he took "French leave." An investor in the enterprise swore out a warrant for him, charging embezzlement, and the contractor who had done the foundation work on the factory also woefully announced that he done about $8,000 worth of work for Moon for which the latter had not paid a cent. Builders, plumbers, heating men and others joined in the chorus. Some hope was injected in the breasts of his mourners when a search disclosed the two sample automobiles which Moon had built to demonstrate his transmission idea, but consultation with an expert revealed the joy killing information that there was one serious objection to the practical use of the transmission—i. e., that it would require an engine of twice the ordinary power of an automobile to make it work.

### Michigan Body Factories Consolidated.

The Monroe Body Co., Pontiac, Mich., has been reincorporated, with capital stock of $500,000, and has taken over the plant, equipment and all assets of the Yeomans Body & Box Co., Detroit, and will operate plants in both Detroit and Pontiac, with the main offices at their Detroit plant on Fort street west. The officers of the new organization are as follows: R. F. Munroe, of Pontiac, president and general manager; Alfred Fritzsche, of Cleveland, vice-president; John C. Rittenhouse, of Cheboygan, Mich., treasurer, and Fred H. Yeomans, of Detroit, secretary. William T. Hubbard, of Toledo, Ohio, with the above officers, constitute a board of directors. J. M. Parker, the former secretary of the Monroe Body Co., will act as assistant to the president. A. W. King will be factory manager.

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## THE WEEK'S INCORPORATIONS.

Dover, Del.—The Collins Gear & Motor Co., under Delaware laws, with $250,000 capital.

Detroit, Mich.—Cooley Automobile & Tire Co., under Michigan laws, with $50,000 capital.

Plainfield, N. J.—Motor Parts Co., under New Jersey laws, with $125,000 capital; to sell automobile accessories and motor parts.

Chicago, Ill.—North Side Automobile Club, social, without capital. Corporators—John F. Stevens, M. W. Cluxton, V. R. Lynch.

Spokane, Wash.—Regal Garage Co., under Washington laws, with $10,000 capital. Corporators—H. F. Preston, E. C. Finlay, George F. Preston.

Jackson, Tenn.—Jaskson Garage Co., under Tennessee laws, with $10,000 capital; to conduct a garage. Corporators—J. A. Pape, S. M. Spiller.

Pittsburg, Pa.—Universal Auto Bureau Supply Co., under Delaware laws, with $100,000 capital; to manufacture and deal in automobiles and accessories.

Dayton, Ohio—Everitt Motor Car Co., under Ohio laws, with $50,000 capital; to deal in automobiles. Corporators—W. A. Shroyer, L. A. Seward, D. H. Pfoutz.

Chicago, Ill.—Birchwood Garage, under Illinois laws, with $2,500 capital; to conduct a garage. Corporators—M. L. Moody, P. W. Moore, J. L. Meier, Anthony Brandt.

Chicago, Ill.—Furner Motor Car Co., under Illinois laws, with $25,000 capital; to manufacture and deal in motor cars. Corporators—E. Furner, A. W. Eschert, W. J. Bell.

Fond du Lac, Wis.—Crescent Motor Co., under Wisconsin laws, with $20,000 capital; to deal in motor vehicles. Corporators—W. C. Reinig, F. G. Hulbut, W. A. Meiklejohn.

Minneapolis, Minn.—Alco Motor Sales Co., under Minnesota laws, with $25.000 capital; to deal in automobiles. Corporators—R. J. Powell, M. R. Nyman, H. W. Volk.

Chicago, Ill.—Chicago Regal Motor Co., under Illinois laws, with $10,000 capital; to deal in automobiles. Corporators—Glenn Holmes, Donald H. McGiloray, Earle F. Tilley.

Los Angeles, Cal.—Hamilton Motor Co., under California laws, with $50,000 capital. Corporators—N. W. Hamilton, E. J. Pyle, A. A. Genereaux, Alice Hamilton, E. W. Leslie.

Dayton, Ohio—The Dayton Commercial Auto Truck Co., under Ohio laws, with $50,000 capital. Corporators—L. L. Welmer, H. A. Lewis, G. W. Ozias and C. A. White.

Brooklyn, N. Y.—Barnum Auto Co., under New York laws, with $1,000 capital; to deal in automobiles. Corporators—Edward H. Barnum, Carrie W. Barnum, Fred Schwartz.

St. Louis, Mo.—The Lindell Motor and Auto Parts Mfg. Co., under Missouri laws, with $6,000 capital. Corporators—E. B. Campbell, Alfred A. Wagner and George S. Brauks.

Minneapolis, Minn.—Cycloid Mfg. Co., under Minnesota laws, with $600,000 capital; to manufacture automobiles and trucks. Corporators—A. Paegel, W. P. Cockey, C. O. Furbush.

Detroit, Mich.—Detroit Auto Welding Co., under Michigan laws, with $10,000 capital; to conduct a repair shop. Corporators—Eric Groul, George B. Wootten, Samuel May.

Boston, Mass.—Lozier Sales Co., under Massachusetts laws, with $50,000 capital; to deal in automobiles and motor vehicles. Corporators—H. A. Castle, J. E. Carroll, R. H. Wesson.

Chicago, Ill.—Manufacturers' Auto Tire Co., under Illinois laws, with $2,500 capital; to manufacture automobile tires. Corporators—W. A. McGivern, John F. Clare, Edward Byrnes.

Chicago, Ill.—Chapin Auto Supply Co., under Illinois laws, with $50,000 capital; to deal in automobiles and supplies. Corporators—Daniel C. Beard, Glenn E. Plumb, Morgan L. Davies.

Cleveland, Ohio—Roy Ransom Auto Livery Co., under Ohio laws, with $10,000 capital; to conduct an automobile livery and garage business. Corporators—Roy Ransom and others.

Detroit, Mich.—Horton Autoette Mfg. Co., under Michigan laws, with $100,000 capital; to manufacture two-wheeled automobiles. Corporators—A. J. Potter, Allen Horton, H. B. Schantz.

Indianapolis, Ind.—Mais Motor Truck Co., under Indiana laws, with $500,000 capital; to manufacture automobiles and motor trucks. Corporators—A. W. Markham, E. W. Spencer, Charles Fisher.

Syracuse, N. Y.—Central City Motor Car Co., under New York laws, with $10,000 capital; to deal in automobiles and conduct a garage. Corporators—Alvie G. Williams, A. H. Hughes, W. S. Curtiss.

Rochester, N. Y.—Kline Motor Car Co., under New York laws, with $10,000 capital; to deal in automobiles and conduct a garage. Corporators—George Schaick, George W. Schaick, John E. Whitbeck.

New York City, N. Y.—Motor Express Co., under New York laws, with $300,000 capital; to maintain an automobile package delivery system. Corporators—Edward Roche, Enoch Levy, Louis Rosenblum, all of New York City.

Canonsburg, Pa.—Collins Gear & Motor Co., under Delaware laws, with $250,000 capital; to manufacture gasolene motors and machinery. Corporators—F. R. Hansell, Philadelphia; E. T. Vennel and G. H. B. Martin, both of Camden, N. J.

New York City, N. Y.—The Garage Service of America, under New York laws, with $25,000 capital; to maintain a garage and establish general mercantile agency in relation to automobiles. Corporators—R. H. Wagoner, L. C. Twombly, R. C. Davies.

Richmond, Va.—Virginia Taxicab Co., under Virginia laws, with $100,000 capital; to carry on a transfer business, operate sightseeing cars and other automobiles and vehicles. Corporators—J. W. Travers, Walter Holliday, J. A. White, Stuart McLean.

New York City—Moore Auto Skid Preventer Co., under New York laws, with $500,000 capital; to manufacture motors, engines, automobiles and devices and appliances for the safety of automobiles. Corporators—F. J. Berry, E. Lewin, M. Wirth.

New York City, N. Y.—Pennsylvania Motor Car Co., under New York laws, with $50,000 capital; to manufacture all kinds of motors, engines, automobiles, motorcycles aeroplanes, motor boats, etc. Corporators D. Hamilton, A. A. Russel, L. H. Denny, all of New York City.

### Increases of Capital.

Cleveland, Ohio—Booth Demountable Rim Co. increases capital from $50,000 to $100,000.

Kansas City, Mo.—Southwest Automobile College Association increased capital from $3,000 to $10,000.

Detroit, Mich.—Michigan Motor Car Co. increases capital to $100,000.

Detroit, Mich.—Goodfellow Tire Co. increases capital from $30,000 to $250,000.

Pontiac, Mich.—Monroe Body Co. increases capital from $50,000 to $500.000.

Detroit, Mich.—Chalmers Motor Co. increases capital from $300,000 to $3.000,000.

Detroit, Mich.—Krit Motor Car Co. increases capital from $100,000 to $250,000.

### Worth Forced into Receiver's Hands.

Creditors of the Worth Motor Car Mfg. Co., Kankakee, Ill., have forced the concern in a receiver's hands. They charge that Samuel R. Hunter, vice-president, and W. A. Duncan, a stockholder, removed machinery and automobiles valued at $6,000 from Kankakee to Gary, Ind. Judge Sanborn, in the United States District Court, at Chicago, has issued an injunction restraining the defendants from disposing of these assets. The company owes about $5,000 and has assets estimated at $25,000.

### Will Handle Lion in the East.

Everett S. Hilton and W. H. Bowers have taken the New York City agency for Lion cars, made by the Lion Motor Car Co., of Adrian, Mich. They also will control New England and the entire state of New York.

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## IN THE RETAIL WORLD.

The Nebraska Buick Co. has opened a branch in Sioux City, S. D. S. D. Douglas is the manager.

The Florida Motor Co., of Jacksonville, Fla., will erect a fireproof garage and salesroom on Forsyth street, between Liberty and Market.

The Boyd Automobile Co., of Kansas City, Mo., has added Hudson cars to its line of Haynes cars. Its salesrooms are at 31st and Main streets.

The livery stable owned by Thomas F. Ryan, and located at 139 East 69th street, is being remodeled into a garage. The work will cost about $18,000.

The Pacific Motor Car Co. has taken the agency for Reo cars, covering the territory north of Bakersville, Cal. Stevens-Duryea also are handled by this company.

The Abbott-Detroit Motor Co., of Kansas City, Mo., has taken up new quarters at Admiral boulevard and McGee street. Accessories and supplies have been added to its line.

The Gillis-Strickland Motor Co., of Rochester, N. Y., has changed its name to Gillis-Baird Motor Co. H. L. Baird has bought an interest in the firm from G. F. Strickland.

With the intention of specializing in the second hand trade, Edward Ellis, of Minneapolis, Minn., has started in business in the Twin Cities. His headquarters are in the Security building.

O. H. Driscoll has been appointed agent for the Mitchell and Hupmobile cars in Trenton, N. J. He was a member of the firm of Twist & Driscoll, but is now conducting the business alone.

Washburn Bros., Buick agents for South Pasadena, Cal., have taken a three-year lease on the new Jacobs building at 1132 Madison street. They expect to establish their permanent location in this building.

Plans are under way for the construction of a garage on Central avenue, Dover, N. H., which will be occupied by W. Kimball. Kimball formerly was interested in Frank Bradley's garage in the same town.

The Genesee Motor Car Co., recently organized at Elmira, N. Y., has opened its headquarters at 108 West Church street. Cadillac cars will be shown exclusively by the new firm, of which I. D. Waterbury is the manager.

Austin King and O. F. Parson, both of Vicksburg, Miss., have gone into partnership and opened a garage and repair shop on South Washington street in their home town. In addition they will conduct a renting service.

The Highland Motor Garage on 27th street, Milwaukee, Wis., has changed hands. The new owner is A. F. Eckstein, and he will make a specialty of dealing in second-hand cars and in supplies, although the former renting service also will be carried on.

E. M. Leach, who two months ago organized the East Douglas Automobile Co. at Wichita, Kan., has sold his business to W. B. and R. B. Ferris, of Cherokee, Okla. The garage is located at 1236 East Douglas avenue.

Under the style of the Northcutt-Smith Co., a new firm has entered the automobile business, with headquarters at 11 Auburn avenue, Atlanta, Ga. Hudson, Chalmers and Pierce-Arrow cars will be handled by the new concern.

Mexia, Texas, has heard the call of the motor car and will soon boast of its first garage. The structure is being erected by R. J. Jackson, and will contain a fully equipped machine shop as well as an assortment of accessories.

The Love Garage Co., of Columbus, Ohio, has made an assignment of all its property to E. E. Minnick. The president of the company is James T. Love. B. S. Myers, Ira Armstrong and A. M. Crumrine have been appointed appraisers.

Under the style Snyder Brothers, a new firm has entered the garage business in Beaver, Pa. The structure which is being built for them at the corner of Third street and East End avenue will be 50 x 70 feet, of concrete and cement blocks.

Harry Chambers, who conducts a garage and repair shop at Fourth and Franklin streets, Columbus, Ind., has bought a garage at Shelbyville, Ind., and is moving his equipment to the new place. His old garage probably will be torn down.

The McAllister Bros. Motor Car Co., Pittsburg, agents for the Cadillac line, have moved into new quarters. Their new building, which is not quite complete, is at Baum and Beatty streets, and said to be one of the finest in Pennsylvania.

Owen H. Fay, Elmore agent in Chicago, Ill., has surrendered the agency, and the interests of the company will now be looked after by G. W. Goss, of the same city. Goss is the brother of A. H. Goss, secretary of the General Motors Co.

W. T. Haines, Jr., a former agent for the W. C. Moore Auto Co., Wilkesbarre, Pa., has gone into business for himself. He is building a garage on Hanover street, where he will sell second hand cars and conduct a garage and renting service.

The Providence Auto Equipment Co. has purchased the entire stock of the Angier Co.'s Providence branch, which has been closed out. F. F. Kellogg is manager of the Equipment company, with headquarters at 9-11 Dorrance street, Providence, R. I.

Laurel, Del., is to have its first public garage, which will be located at the corner of Delaware avenue and Front street. Joshua Marvil will establish therein a repair shop, and also conduct a freight transport service between Laurel, Lewes and Rehoboth.

Robert C. Howard, formerly the Mitchell agent at Atlanta, Ga., has severed his connection with the Mitchell company and now handles the Parry car. He is now located at 38-40 Auburn avenue, where he does business under the style the Parry Motor Car Co.

The Consumers' Automobile Tire & Tube Co. is the title of a new company formed at Chicago, Ill., with headquarters at 1515 Michigan avenue. J. J. Casey is the manager of the concern, which, as its name indicates, expects to deal in automobile and motorcycle tires.

The Dayton Motor Car Co., manufacturers of the Stoddard-Dayton cars, have bought out the Motor Car Repair Co., of Wilmington, Del., and will continue the business as a Stoddard-Dayton branch, under the style the Stoddard-Dayton Auto Co. Frank S. Garrett is the new manager.

The Standard Motor Car Co., of Los Angeles, Cal., has moved into new and more commodious quarters at 12th and Olive streets. The salesroom is 50 x 70 feet, while the workshops cover 100 x 70 feet. E. Roger Stearns is manager of the company, which will continue to feature Ford and Velie cars.

Leon T. Shettler, Pacific agent for the Apperson cars, is arranging for an invasion of Fresno, Cal., with a branch office. The San Francisco branch has been placed in charge of John W. Swan, of San Diego, Cal., while the Los Angeles main office soon will be removed to Pico street, between Main and Hill streets.

The Southern California Knox agency at Los Angeles, Cal., henceforth will be known as the Doerr-Brown Co., under which name it has been incorporated. Its new headquarters will be 1205 South Olive street, and Albert Doerr will be the new manager. His partner, H. T. Brown, will handle the selling end of the new firm.

Work has been started on a new garage and salesroom for W. H. Barnes, agent for the Apperson "Jackrabbit" and Rapid truck, at Seattle, Wash. The new structure is located on Senaco street just east of Sixth avenue, and will be three stories high, of brick and concrete, 60 x 60 feet. As soon as the building is finished Barnes will add Gleason delivery wagons to his line.

Taking over the agencies of the Baker electrics formerly handled by the Robertson Motor Co., and the Hudson, formerly shown by the Barclay Auto Co., the Alco Motor Sales Co. has been established at 832-836 Hennepin avenue, Minneapolis, Minn. Alco cars have been added to the above two lines and M. R. Nyman has been chosen president of the company. Cordial relations are said to obtain between the three firms concerned in the agreement.

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## An Unparalleled Reliability Test

WHITE standard auto trucks are successfully meeting the requirements of probably the most severe reliability test to which a motor truck was ever put. The Goodrich Good Roads Marking Tour, covering the whole United States, uses White 1½-ton gasoline trucks.

## What It Means

These trucks—carrying heavy loads—in the hands of unskilled laborers—in all kinds of weather—meeting all road conditions—have covered hundreds of miles (over 2500) of Ohio, Pennsylvania and New York territory without one cent of cost for repairs.

## White Motor Trucks

This test proves conclusively the reserve power in the White gasoline engine—the reserve strength in the White frames and other parts. Such reliability does not happen—it is not a matter of chance—but the result of good building, of correct design and proper materials.

# THE WHITE COMPANY

**830 EAST SEVENTY-NINTH STREET CLEVELAND, OHIO**

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THE MOTOR WORLD

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### Continued Need for Demonstrations.

By no means has the day of demonstrations passed, despite the optimistic assertions occasionally made by commentators who might be considered in a position to know. Every little while some enthusiast arises to declare that customers no longer require demonstrations and are perfectly willing to lay down their money for cars purely on the latter's reputation. But the average automobile salesman still finds demonstrations an important part of his selling.

It is true that the character of demonstrations has changed vastly from pioneer days. At one time people demanded demstrations to see if the cars actually would run. Now they take it for granted that a car will run, but like to sense how it runs. The silence of the motor, the ease of the springs and upholstery, the comfortable proportions of the seats and floor space in actual road work, the manner of gear changing and the general "feel" of the car in service are the points that tempt intending purchasers to give the time necessary for a demonstration. This particularly is the case with those who have owned cars or own them at present and are considering new machines.

Intelligent salesmen regard it as something of a victory if they can get a prospective customer to take a demonstration. The act indicates a favorable inclination toward the car. What is quite as important, it gives the salesman a period of uninterrupted time in which to use his persuasive and hypnotic powers to close the order. He has the customer all alone, and is able to present his selling talk to full advantage.

Undoubtedly those dear, dead days have passed when the giving of a so-called demonstration was nothing more nor less than taking a man out on a joy ride and getting him "stewed" or "pickled," in order that he might be reduced to that state of alcoholic compliance whereby he would sign an order in such scrawl as his condition could command at the time. The fake salesman who used a car all day for the benefit of himself and friends under the guise of giving demonstrations, also is pretty well weeded out. But the active salesman of today is quite as ready to give a demonstration as at any time in the past, and his "demonstrator" may be seen in the front of office buildings, doctors' residences, country houses, manufacturing concerns or anywhere else where there is a prospect of business.

### Standardizing Body Designs.

Despite the obvious advantages of reducing body design to a standard basis, the question somehow has not been given the attention it so well deserves. Automobile manufacturers continue to produce chassis dimensioned according to their own ideas, yet with an approximate uniformity that renders the lack of conformation to standards all the more remarkable. Not only do individual body builders and agents feel the effects of this, but the makers of tops, wind shields and other body attachments are made to suffer the consequences. In the last analysis, of course, it is the individual who rides in the car that pays for the extravagances of such needless lack of agreement among common specifications.

But whatever inconvenience results in the case of ordinary stock product the difficulty is most pronounced in the case of the taximeter cab. With such vehicles multiplying to an almost bewildering extent and the business prospering beyond expectation, it is a remarkable fact that absolutely nothing has been done toward standardizing the cab body.

How wide and equally needless the existing discrepancies in motor cab practice really are was demonstrated recently to an automobile builder who had undertaken to build a new cab. After approaching a number of body builders and finding them reticent to the point of secretiveness, he was forced to fall back on the body builders' own methods of obtaining information concerning the supposed standard measurements. With an assistant, he would hire a taxicab and ride about in it until he had had opportunity to obtain its full interior specifications; then he would leave the vehicle and hail one of another make. Ultimately he reached this conclusion: That instead of the established standards which he had supposed existed, no two products were the same even in respect to such features as the seat, door and sash dimensions. And he found astounding and needless discrepancies between bodies owned by the same operating company and mounted on chassis of the same make.

Public service requirements are absolutely fixed and understandable, and there is no conceivable reason why they should not be formulated in the design of a suitable standard body. The cab operators would benefit greatly thereby and so, though indirectly, would the cab patrons.

As for the less definite requirements of the privately owned car, the advantages of adopting body standards are equally obvious. The industry has produced a limited number of distinct and well defined types of car, each serving a distinct purpose. Certain requirements of each are absolutely fixed by custom and service requirements. The sooner such requirements are expressed in standard specifications and universally adopted the better for the industry and the better for the public which it serves.

### Portable Power Plant Possibilities.

It is easy enough to enthuse over the possibilities of commercial vehicle development along lines which are already perfectly evident and well defined. But it would seem that in the too general tendency to regard the motor vehicle merely

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as a substitute for the horse there is danger of overlooking some of its most useful and profitable opportunities. The motor vehicle merely as a vehicle is one thing. But the small gasolene or electric motor, as developed for automobile use, when applied to the service of portable machinery and also used when occasion requires, for propulsive purposes, is an entirely different conception. And it is a very important one.

Already a beginning has been made in the introduction of automobile fire apparatus; not only in producing vehicles to transport men and appliances to the scene of action, but in perfecting chemical and combination wagons and gasolene pumping engines to replace the cumbersome steamers. Perhaps a more familiar illustration in point is the agricultural motor, which, somewhat on the order of the classical "mechanical housemaid," some day is going to help the farmer with all his chores —even, perhaps, to milking his cattle night and morning.

There are almost unlimited ways in which the power used to propel the special vehicle also may be applied economically in operating it. For instance, there is the vacuum cleaning outfit, which, though commonly operated by gas engine power, still is horse drawn, save in a few isolated instances. There, too, is the portable bilge pump; outfits of the sort being used by electric light, telephone and other service companies for pumping out flooded conduits and sewers. Motor propelled street sweepers are being tried experimentally and their permanent adoption awaits only the time when they shall be brought to a state of proper efficiency. To mention only a few of the many other possibilities in the same line, there are the portable sawmill, baling press and corn mill, outside the particular field of the agricultural motor aforementioned, which is supposed to be able to take care of threshing and harvesting machines and other light farm machinery. There are also the portable hoist, susceptible of development in various ways, including that of a substitute for the donkey engine; and even the portable stone crusher, for use in the construction of highways.

Everywhere that there is use for light and economical motors in small units the gasolene motor is coming into use. For every sort of portable machine which now is moved about by horsepower, there is the possibility of installing a gas engine of the automobile type. It is high time for manufacturers who are alive to their opportunities to co-ordinate these two prospects by producing apparatus in which the motor is made to do double duty. The construction of portable machinery already is highly specialized, to be sure, but that by no means excludes the automobile builder from invading a field for which he should consider himself particularly well equipped.

## COMING EVENTS

August 24-26, Omaha, Neb.—Omaha Motor Club's three days' endurance run.

August 26-27, Elgin, Ill.—Chicago Motor Club's road race and speed carnival.

August 27, St. Paul, Minn.—St. Paul Automobile Club's sociability tour.

August 30, Washington, D. C.—Automobile Club of Washington's hill climb.

August 31, Minneapolis, Minn.—Minnesota State Automobile Association's reliability run.

September 3, Philadelphia, Pa.—Quaker City Motor Club's sociability run to Ocean City, N. J.

September 3 and 5, New York City—Robertson-Oldfield meet at Brighton Beach. Dan J. Smith, promoter.

September 3 and 5, Indianapolis, Ind.—Grand Circuit meeting on Motor Speedway.

September 3-10, Denver, Col.—Automobile show at Overland Park.

September 5, Denver, Col.—Denver Motor Club's 200 miles road race.

September 5-10, Minneapolis, Minn.—Automobile races at state fair grounds.

September 7-10, Lyons, N. Y.—Wayne County Agricultural Society automobile races.

September 7-10, Buffalo, N. Y.—Automobile Club of Buffalo's touring reliability contest; 800 miles.

September 9-10, Providence, R. I.—Rhode Island Automobile Club's annual meet at Narragansett Park.

September 10, San Francisco, Cal.—Automobile Club of California's Portola road race in Golden Gate Park.

September 10-12, Seattle, Wash.—Seattle Motor Club's race meet.

September 10-12, New York City—Motor Contest Association's Catskill tour and hill climb.

September 15, Oklahoma City, Okla.—Oklahoma Automobile Association's hill climb.

September 17, Syracuse, N. Y.—Automobile Club of Syracuse-Syracuse Automobile Dealers' Association joint race meet at fair grounds track.

September 18, Los Angeles, Cal.—Annual road race up Mount Baldy.

September 20-22, Louisville, Ky.—Louisville Automobile Club's annual reliability and endurance run.

September 24, Narbeth, Pa.—Norristown Automobile Club's race meet.

September 30-October 4, Minneapolis, Minn.—Minneapolis "Tribune" reliability run to Aberdeen, S. D., and return.

October 1, Long Island Motor Parkway, N. Y.—Motor Parkway Sweepstakes.

October 1, Springfield, Ill.—Automobile races at state fair grounds.

October 1, Mineola, L. I.—Sixth annual Vanderbilt Cup race on Long Island Motor Parkway, under the auspices of the Motor Cups Holding Co.

October 6-8, St. Louis, Mo.—Third National Good Roads Convention.

October 7-8, Indianapolis, Ind.—Closing meet on Indianapolis Motor Speedway.

October 8, Richmond, Va.—Automobile races at state fair grounds.

October 8, Philadelphia, Pa.—Quaker City Motor Club's third annual 200 miles road race in Fairmount Park.

October 10-15, Hot Springs, Ark.—Automobile races at Arkansas State Fair.

October 15, Mineola, L. I.—Motor Cups Holding Co., 278 miles international road race on Motor Parkway, for the Grand Prize of the Automobile Club of America.

October 20-22, Atlanta, Ga.—Atlanta Automobile Association's meet at motordrome.

October 27-29, Dallas, Tex.—Dallas Automobile Club's race meet.

November 5, Phoenix, Ariz.—Maricopa Automobile Club's Los Angeles-Phoenix road race.

November 6-15, San Antonio, Tex.—San Antonio Automobile Club's race meet.

November 10-13, San Antonio, Texas—San Antonio Automobile Club's races at International Fair grounds.

November 24, Savannah, Ga.—Savannah Automobile Club's road race.

November 24, Redlands, Cal.—Mile High Hill Climb Association's contest.

November 24, Santa Monica, Cal.—Southern California Automobile Dealers' Association's annual road race; 200 miles.

December 3-18, Paris, France—French Automobile Manufacturers' Salon in Grand Palais.

January 7-14, New York City—Association of Licensed Automobile Manufacturers eleventh annual show in Madison Square Garden. Pleasure cars and accessories.

March 4-12, Boston, Mass.—Boston Automobile Dealers' Association's annual show in Mechanics building.

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## SETS NEW TRANSCONTINENTAL MARK

### Whitman Again Breaks the New York-San Francisco Record—Clips Almost Five Days from Time.

Fulfilling the expectations of those who had followed his journey, L. L. Whitman, who has made it his business to break transcontinental automobile records occasionally during the last eight years, again distinguished himself in his favorite way last week, when he completed his journey from New York to San Francisco in the four cylinder 30 horsepower Reo car. He reached the Golden Gate City on Thursday last, 18th inst., after covering the 3,557 miles in ten days 15 hours 12 minutes. Thereby he clipped four days 10 hours and 59 minutes off his previous record, made in 1906 with a six cylinder, 30 horsepower Franklin car.

On the present trip Whitman alternated at the wheel with E. I. Hammond, while Percy Haycock, of New York; John Griffith, of Lansing, Mich., and Dave Fassett, of Grand Rapids, Mich., the mechanicians, changed about at the various relay points, Fassett having made the double cross-continent world's record trip with Percy F. Megargel in a two cylinder Reo "20" in the fall and winter of 1905-6, which record is unchallenged and unbeaten to the present time.

Whitman left New York at 12:01 a. m., Monday, August 8th, via Albany, Utica, Geneva, Buffalo, Erie, Cleveland, Bryan, South Bend, Aurora, Cedar Rapids, Council Bluffs, North Platte, Cheyenne, Ogden and Sacramento. Heavy rains and muddy roads seriously interfered with his advance between South Bend and Cedar Rapids. After leaving the mixed prairie roads of Nebraska and Wyoming, in the middle of which the tall grass prevented rapid progress for many miles, new obstacles were encountered in the deep sands and primitive roads west of Ogden, via Battle Mountain, Nevada, and Reno. In each of the large cities pilots were secured who picked out the shortest route and best roads.

It was in 1903 that Whitman made his first transcontinental effort, he being the third to have the distinction of completing the, then stupendous, undertaking in the same year. Dr. H. Nelson Jackson, in a Winton, and E. T. Fetch, driving a Packard, completed the trip from San Francisco to New York in July and August, respectively. Whitman finished on September 18th, making the journey in 73 days, as against Dr. Jackson's 63 days, and Fetch's 61. He drove a little curved dash Oldsmobile, the Olds that was distinguished by wire wheels and tiller steering gear.

The following year Whitman went out for Fetch's record, this time driving a four cylinder 10 horsepower air-cooled Franklin. He finished in New York on September 1st, in 33 days, having nearly halved the existing figure. In 1906 he again took the road with a Franklin car, this time with an organized relay crew of five men, who handled the six cylinder 30 horsepower car on a 24 hour schedule.







DESOLATE SCENES ON THE TRANSCONTINENTAL REO'S RECORD RUN

### Kansas Farmers Enjoy Motor Racing.

That devotees of automobile racing are not confined to the cities was strongly illustrated at the race meet at Great Ben, Kan., on the 13th inst., when 2,000 Kansas farmers and heir families enjoyed the delirium of speed which was served up on the half mile track. There were over 400 cars on the ground. Charles Fravel in a Jackson won the feature race, a 10 miles free-for-all, after an exciting struggle with Shoemaker, Sellers, for eight miles. In the eighth mile the latter threw a tire and skidded off the track. Time, 15:17⅕. In the five miles race for cars under $1,500, a serious accident occurred. A Reo driven by George Spencer threw a tire and turned turtle, pinning Spencer beneath it and crushing him badly. The event was won by a Buick in 7:16⅗. The same car also captured the five miles race for cars costing $1,000 and under in 6:14. A Ford was second.

## OPPOSE "UNLICENSED" ENTRIES

### Radical Element in Los Angeles Licensed Dealers' Association is in Arms—Proposed Race Postponed.

There's a pretty how-de-do in the ranks of the Licensed Dealers' Association of Los Angeles, Cal., following the decision of that dignified body to throw precedent to the winds and permit unlicensed cars to compete in the Phoenix desert road race in November. As a result of this action, wholesale resignations followed from the element which was opposed to the new policy and included President Lon Lee, and the entire Santa Monica race committee. The opponents of the wide open racing policy claim that it is a flagrant violation of the by-laws of the association, and considerable ill feeling has been engendered, for perhaps nowhere in the country has the line of demarcation between the licensed and unlicensed dealers been more rigidly drawn. Louis H. Schwaebe has been elected president to succeed Lee, indicating that the radical element of the association is not disposed to return to its original tenets. As a result of the hubbub the Santa Monica road race which was set for September 18th, is up in the air and probably will be shelved until Thanksgiving Day at the earliest. It is possible that it may not be held at all this year.

### Wildwood Races Called Off.

There will be no races on the Ocean Drive, Wildwood, N. J., on September 3d and 5th, the scheduled card of the North Wildwood Automobile Club being called off owing to a majority of the members being opposed to it. Following the July 4th meet considerable discussion arose over the failure of several communities who were benefited by the races to bear their share of the financial burden, and this parsimonious policy largely was responsible for the action taken.

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## ELGIN RACES DRAW BIG FIELDS

### Circuit Proves Fast in Practice—Mrs. Mulford as a Mechanician—Six Cylinder Entries Scarce.

With the closing of entries last Saturday night, 20th inst., for the Chicago Motor Club's national stock chassis races at Elgin, Ill., on Friday and Saturday of this week, 26th and 27th inst., 35 nominations were received. Twenty-two of them, the full quota eligible, were for the three light car races on the first day, and the remaining 13 were cast for the "Western Vanderbilt," the Elgin National, on Saturday. The limitation of starters in Friday's events was made necessary by the topographical restrictions of the 8½ miles circuit. Several of the drivers will be in the lineup on both days. But one of them will be foreign built, a Benz having been entered.

For a strictly American event no more promising field could be asked for, for with one or two exceptions it includes the very flower of the American drivers, such as Grant, Robertson, Mulford, Harroun, Matson and Dawson. Oldfield, who has kept aloof from road racing since the Briarcliff of 1908, will take another try at it in a Knox six. Six cylinder cars are very much in the minority, only three being named—the Alco, Matheson and Knox. Four 1911 models will make their debut, the Knox, Lozier, Matheson and Lexington, while the Alco is of 1909 vintage. The others are current models.

On Tuesday last the course was opened for practice, and the predictions of a fast circuit were verified. Grant was clocked for a lap in the Alco in 8:21, according to local report, and Harroun, Marmon, and Mulford, Lozier, went around in 8:23—all of which works out better than a mile a minute. Clad in regulation racing regalia, Mrs. Mulford created a sensation by acting as her husband's mechanician. According to official measurement the course is eight miles 2,499 feet in length, and has only four turns, being of wedge shaped contour. By working day and night the contractors have succeeded in whipping the circuit into excellent shape considering the extended drought which has prevailed in the section this summer.

Thousands of gallons of oil have been laid on the road, and the turns banked for high speed. The thank-you-ma'ams in the homestretch have been cut down and the soft spots filled, rolled and packed. Particular attention has been paid to the "hairpin" turn, which is within a mile of the stands and which is the spot where the greatest action is likely to occur.

Fenced in on both sides the course will be in the nature of a stockade, the drivers being in the central enclosure and the officials and attendants in the infield. This precaution was taken to insure the crowds being kept off the road. Another innovation is the construction of concrete repair pits instead of the usual wooden structures. These pits were built to last, with the idea of using them in future. After races it is intended to preserve them by filling them in until another race is held.

Indicating a notable advance in the grooming and coaching of racing teams is the "crows nest" in the National camp, which is a feature introduced for the first time in motor racing. It is a tower 73 feet high which has been erected on the roof of one of the garages in the National headquarters and is reached by permanent ladders. From this elevation the entire course can be seen, and during the races men will be stationed there with field glasses to follow the movements of the National cars. All of the camps were pitched this week and the drivers are out in force for practice every day. Today (Thursday) a majority of them will content themselves with light workouts, and will rest up for the speed duel on the morrow.

The cars and drivers which will compete are as follows: A. W. Greiner, National; A. Livingstone, National; J. Dawson, Marmon; Ray Harroun, Marmon; Ralph Mulford, Lozier; Charles Basle, Matheson; Harry Grant, Alco; H. Saynor, Simplex; G. Schoeneck, Kisselkar; F. Stinson, Black Crow; E. F. Schiefler, Jackson; Barney Oldfield, Knox; George Robertson, Simplex; W. H. Pearce, Falcar; J. F. Gelnaw, Falcar; R. Ireland, Midland; R. Drach, Lexington; D. Buck, Marmon; J. W. Fritz, Cino; A. Schillo, Overland; H. Endicott, Kisselkar; Joseph Matson, Corbin; A. Monsen, Marion; Frank Kulick, Ford; J. Hatch, Ford; W. Endicott, Cole; Chester Cheney, Staver; G. Monkmeier, Staver; E. A. Hearne, Benz, and A. W. Miller, Warren-Detroit.

### Robertson and De Palma Matched.

Another attempt to decide the question of superiority between George Robertson and Ralph DePalma will be made at Narbeth, Pa., on September 24th, when these two stars will meet again in a series of matches. The Norristown Automobile Club, which is promoting the meet, has secured the two past masters of motor racing as headliners for its card, and has hung up the surprisingly large—for the locality—sum of $2,000, which will be split $1,500 and $500. The match will be five miles heats, best two out of three.

### Ball Takes Cheyenne Road Record.

Maintaining the remarkable average of 67.4 miles an hour, including one stop for tires, Harry Ball, driving a 50 horsepower Apperson, won the 200 miles road race of the Cheyenne (Wyo.) Motor Club on Tuesday, 23d inst., in 2:58:28. He was the only one of a field of six to finish.

## MIDDLE GEORGIA HOLDS A MEET

### Residents of the State Put Up Warm Competition at Hawkinsville—Pitts Wins Free-for-All.

Drawn from surrounding towns in swarms, people poured into the little town of Hawkinsville, Ga., on Monday, 15th inst., to witness the automobile races given by the newly organized Middle Georgia Automobile Association, whose successful inaugural meet at Jackson recently encouraged it to repeat the offense. Never before in its history has Hawkinsville seen such activity, and the sharp bark of the open exhausts will live long in the memories of the natives. Recruited from local and nearby sources, the drivers put up some exciting samples of racing. The free-for-all was the feature event and was won by J. H. Pitts, National, who beat out a six cylinder Olds. All of the races were at one-half mile. The summaries:

Cars costing $700 and under—Won by F. M. Etheridge, Maxwell; second, W. W. Taylor, Brush. Time, 1:14⅘.

Cars costing $701-$1,200—Won by M. Thompson, Maxwell; second, W. H. Mallert, Buick. Time, 1:01.

Cars costing $1,651-$2,250—Won by J. T. Coleman, Buick; second, D. B. Ware, Buick; third, C. W. Brantly, White. Time, 0:54¾.

Free-for-all—Won by J. H. Pitts, National; second, H. J. Lamar, Oldsmobile; third, H. K. Burns, National. Time, 0:45.

### Chicago Clubs to Clash Again.

The last leaf of Chicago's motor calendar for 1910 will be torn off on October 6th-7th, when the Chicago Automobile Club and the Chicago Athletic Association teams will clash in their second interclub reliability match of the season for the L. E. Myers trophy. The trophy will be a silver cup instead of a shield or plaque, and will become the permanent property of the team which wins it three times. The deed of gift provides that this year the start and finish shall be at the Automobile Club, instead of starting at one organization's headquarters, and finishing at that of the other as in the past. Next year the athletic association will have charge of the event. Waukesha, Wis., will be the outward terminus of the run, and the first day's route will be by way of Elgin, lake Geneva and Oconomowoc. The return trip will be largely over the same leg with some deviation and the round trip will total 300 miles. In order to be independent of the doubtful accommodations which small towns offer, it is planned to load a motor truck with good things and send it ahead of the party to a prearranged spot where a real old-fashioned picnic will be held.

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## GRIND 1,253 MILES IN 24 HOURS

**Patschke and Poole in a Stearns Make a Harvest of Records at Brighton Beach —Several Smashes.**

At 8:30 o'clock Saturday night, 20th inst., the American 24 hours track record, which has been making its headquarters with the Lozier Motor Co., at the northwest corner of Broadway and 56th street, New York City, for the past ten months, moved out quite suddenly and took up a new residence in the Stearns motorium across the street. Incidentally, in the moving, although the distance between the old and new homes was short, the record underwent considerable transformation and the departing Lozier guest of 1,196 miles had grown to 1,253 miles when it arrived at the Stearns establishment.

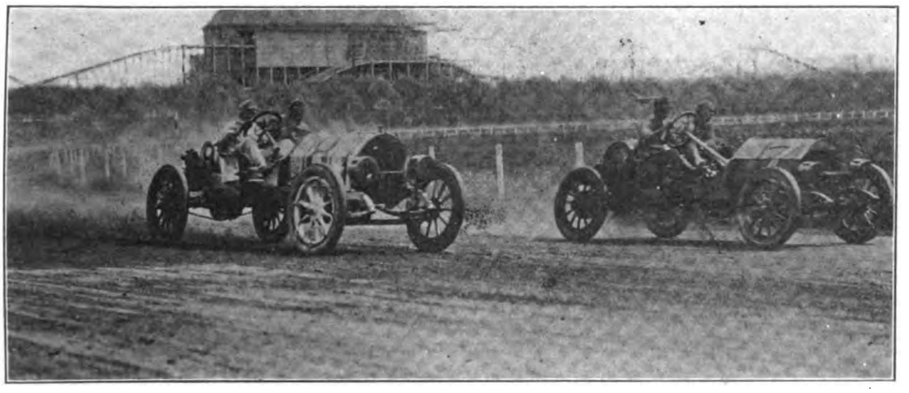
The reason why Miss Record forsook the house of Lozier was due to the ardent wooing she received from Cyrus Patschke and Al Poole in a 30-60 horsepower Stearns car at the second 24 hours race of the season at Brighton Beach track, on the 19th and 20th, when these two veteran campaigners, who alternated at the wheel of a privately owned Stearns which has been through several previous twice-around-the-clock grinds, bettered the Lozier figures by 57 miles. Not satisfied with capturing the 24 hours mark, the Stearns team, who drove one of the most brilliant and spectacular races ever seen at the seaside track, also annexed the 1,000 miles mark and 14 of the hour records. It was the greatest record harvest in the history of 24 hour contests. By a strange coincidence, Patschke also was a member of the record breaking Lozier team last fall, while Poole was at the wheel of the last Brighton 24 hour winner.

Neil Whalen and Charles Basle, who guided a Matheson six, and who were second choice with the fans, took second honors, rolling up 1,178 miles. Third place went to Stanley Martin and Harry Hartman, in a Houpt-Rockwell, who registered 964 miles. This outfit provided most of the action of the race by their spectacular driving and the numerous and thrilling mishaps which befell them. The only remaining one of the seven starters which was running at the finish was the Cole, driven by Bill Endicott and Louis Edmunds, and who, despite sundry fence breaking exploits, managed to keep their scoreboard in operation for 905 miles, and developed a creditable performance.

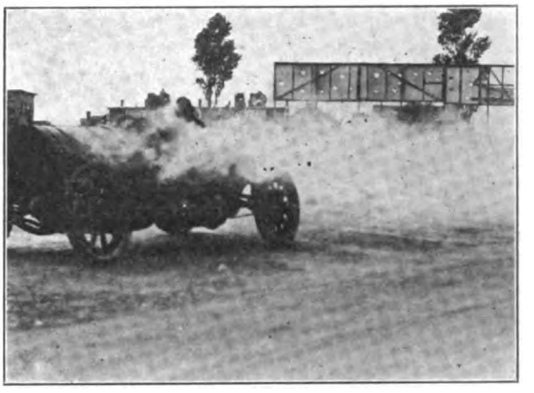
Of the three cars that fell by the wayside, the first to hoist the white flag wes the Allen-Kingston, which was manned by Harry Cobe and Noel Trekas. It retired in the fifth hour with 232 miles to its credit, being eliminated by a broken crank shaft. The ill-fated Marion, which killed one of its crew in a fence butting rampage at the first of the season's day and night grinds last May, again proved unfortunate, and its crew went to the hospital, one of them being badly mangled. Early Saturday morning the steering gear became deranged and the car turned turtle, and unceremoniously spilled out Wallace Owen, the driver, and Tom Williams, his mechanic. The car, which had reeled off 425 miles, was withdrawn. The next unfortunate to be eliminated was the Midland, driven by Anderson and Taylor, which went out of the running at 655 miles, owing to a broken crank shaft.

It was the smallest field which has lined up for a Brighton 24 in many moons. While all credit is due the Stearns for its steady and consistent running, its achievement was aided considerably by the condition of the track, which was faster than ever before, due to the cementing of the turns. The attendance was considerably below the average, about 9,000 people witnessing the start, while less than 5,000 saw the finish.

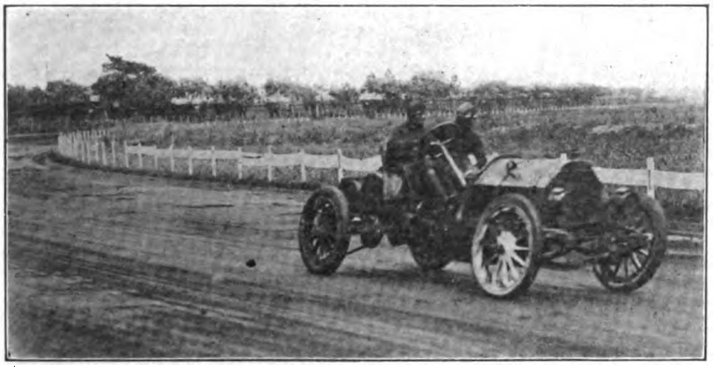
Following its usual custom of persuading some prominent person to act as starter, the Motor Racing Association secured William Loeb, Jr., collector of the port, to do the honors. Although there were nine entrants, two of the most prominent ones, De Palma in the Fiat and Juhasz in the S. P. O., both of whom were expected to be big factors in the contest, did not start and the announcement brought forth loud murmurs of disapproval from the crowd.



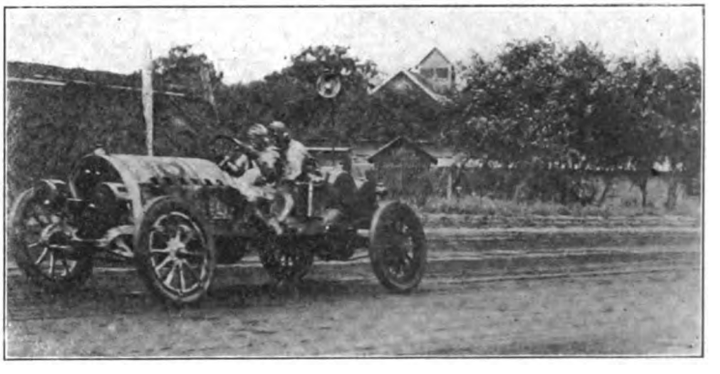
MATHESON OVERHAULING MIDLAND ON THE BACK STRETCH



HOUPT CONFLAGRATION SCENE



WINNING STEARNS ON ITS RECORD TOUR



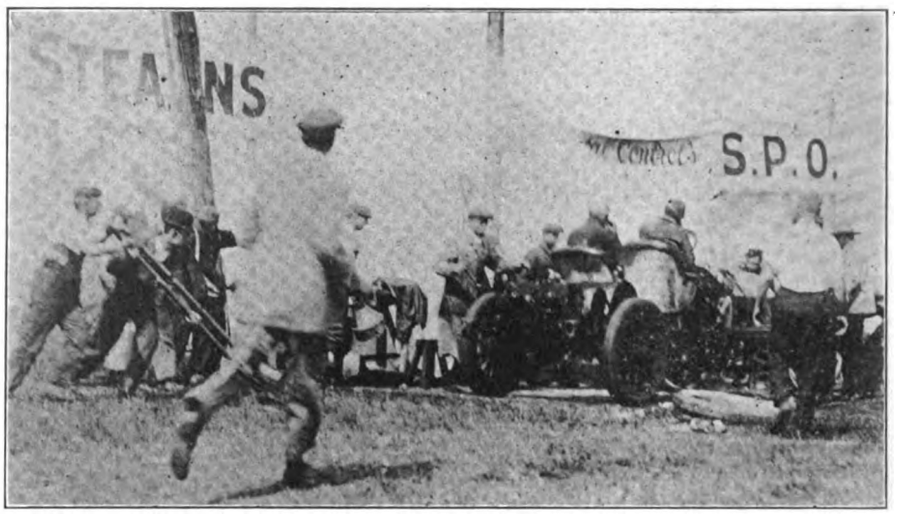
MATHESON SIX THAT FINISHED SECOND

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The reason assigned for their withdrawal was that the cars could not be made ready in time. Previous to the start the contestants were sent around the track a few times, singly, to give the spectators a chance to pick their favorites. A few minutes before half past eight the cars were called to the line and the drivers received the usual instructions. At 8:30 Starter Loeb's pistol spoke and the field was off in a cloud of smoke. That is, all save one, Stanley Martin in the big Houpt-Rockwell, who suffered the ignominy of being left at the post. The big Bristol machine surged and staggered, but finally was brought under control and started after the others, who by this time were well on their way.

Patschke in the Stearns took the lead immediately, with Whalen in the Matheson trailing close, the others being strung out in the rear. The first mile, contrary to the usual order, was slow, despite the fact that generous practice should have made the drivers well acquainted with the turns. After a few miles of trying out, with Patschke still leading the procession, the pace grew faster and soon all were tearing along in true 24 hour fashion.

The first hour was notable for the hot pace which Patschke set, with the others struggling to keep up. They were unable to hang on, however, and the Stearns continued to gain and had lapped the field at 20 miles. When the first 60 minutes were up, 57 miles were registered on the Stearns score board, a new record for the hour, and one mile better than the previous mark which was made by the Fiat. The Matheson was second with 52 miles, Endicott in the Cole came next with 49, and the others followed in this order: Anderson, Midland, 48; Trekas, Allen-Kingston, 47; Owen, Marion, 46, and Martin, Houpt-Rockwell, 45, bringing up the rear.




MAKING READY TO REPLACE STEARNS TIRES

Still maintaining his fast pace, Patschke kept the Stearns safely in front until the 89th mile in the second hour, when the strain began to tell on the tires and he was forced to go to the camp for changes. This allowed Basle in the Matheson to take the leadership. He completed the century in 1:51:15⅘. It was the only time during the entire race that the Stearns was not leading, which attests to its remarkably steady running. Basle's reign as the pilot did not last long, however, for in the 104th mile the Matheson blew a tire on the clubhouse turn, swerved and then crashed through the fence, the first to perform this stock thrill. It was repeated many times during the contest. When inventory of the damage was taken it was found that a front wheel was broken and the steering gear deranged. The crew escaped unscathed. A new wheel was brought and the car driven to the paddock, where it remained for half an hour while repairs were being made. The mishap allowed the Stearns to regain the leadership, and at the end of the second hour, it had scored 107 miles. Despite their accident, Basle and the Matheson were second with 104 miles, and Endicott, Cole, was third with 99 circuits. The others were strung out and having a little scrap of their own for position.




A BUSY MOMENT AT THE MATHESON CAMP

Patschke eased up a bit in the third hour, but he still led with 157 miles. Its long absence from the track cost the Matheson second place, and it fell back to the tail end of the line. Endicott in the Cole succeeded the Matheson at second with 144 miles, and Anderson in the Midland was a close third, one mile behind. The Houpt was a most frequent visitor to the paddock on account of tires, and was in fifth place. Flames shot out from the hood and underpan at frequent intervals, giving the impression that a veritable hellfire was raging within. The big Houpt was the fastest car on the track, and easily passed everything in the stretches but took the turns too fast and lost its gains through having to be shut off too soon.

Shortly after midnight the Midland, which had been playing tail to the kite, developed engine trouble and went to the paddock for a three hour rest. The spectators were treated to another thrill about 1:00 o'clock, when a pool of gasolene in

chanic tried to extinguish the flames, and the crowd watched with bated breath. Suddenly the flames died down and the car kept on. But soon the fire broke out again and efforts to extinguish it without stopping the car proving futile, Martin had to go to the paddock. A leaking gas line appeared to be the cause of the trouble and it evidently was not entirely remedied, for the blaze broke out afresh at frequent intervals thereafter.

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front of the Houpt-Rockwell camp became ignited in some mysterious manner and spread to the oil soaked clothing of Homer Judd, a mechanic. Judd was a pillar of flame in an instant, and attendants rolled him on the ground and threw sand on him. He was severely burned and after receiving medical attention was removed to his home.

At 12:30 in the morning, the end of the fourth hour, the Stearns had covered 211 miles, leading Endicott in the Cole by 17 miles. Trekas in the Allen-Kingston trailed one mile behind Endicott. The record was 219 miles. By 2:00 o'clock the crowd in the stands was very small, the chill morning air driving out most of those who were not provided with heavy coats and wraps. In the eighth hour the Allen-Kingston gave up the ghost with a broken crankshaft, after turning 232 miles. Beyond trips to the camps for tires or adjustments, and some speed duels, nothing startling occurred to enliven the early morning hours, and the grind went on in monotonous fashion.

Just before 6:00 o'clock in the morning the worst smash of the race occurred when the Marion, coming into the homestretch, dropped the rear end of its steering rod. The car went through the inner fence and into the infield, where it turned over. Owen, who had just relieved Basle at the wheel and was swinging the turns in a sleep dispelling fashion, and Williams his mechanic were thrown clear. Owen was badly cut up, while Williams was well shaken up. After receiving temporary attention at the field hospital they were taken to the Coney Island hospital, where they are on the road to recovery.

In the 11th hour the Stearns, which had been sweeping along steadily, again got under the record by five miles, its total being 575. At the end of the 12th hour it was two miles ahead of the record, with 626 miles to its credit. It continued this shattering of hour records for the remainder of the race.

About 11:00 o'clock Saturday morning Endicott in the Cole had his first try at fence breaking and lost an hour for repairs to the car. During his absence Martin in the Houpt took advantage of the fact to burn things up and try to close the gap between them, but the Cole had too great a lead and retained its grip on third.

Endicott sailed along merrily for a while after he came back, until trouble again sent him to the paddock and Martin returned to the attack. Tearing off miles in better than a minute he steadily wore down the lead of the Cole and finally ousted it from third position, which it never regained. The Midland, which had been off and on at intervals during the day, and steadily was falling behind, was taken out of the race around 4:00 o'clock, having piled up 655 miles. A broken crank shaft was the ultimate cause of its downfall. It was the last of the field to drop out.

During the afternoon the order was Stearns, Matheson, Houpt-Rockwell and Cole. In the 20th hour the Stearns made a double killing, for in adition to the hour record it also bagged the 1,000 miles honor, reaching the four figures division in 19 hours 6 minutes and 48⅗ seconds. This was a big dent in the old mark of 20:09:45.

The afternoon attendance was small and was largely affected by the aviation meet at Sheepshead near by. The much battered fence was assaulted again about 6:00 o'clock in the afternoon, when the Houpt-Rockwell broke a steering knuckle and dove through the frail barrier, which gave way like a row of toothpicks. Martin, who was driving, was unhurt, but the car enjoyed nearly an hour's vacation while the doctors were working over it. Like Endicott in the Cole, Martin and the Houpt "came back" and cut loose in the last two hours to make up lost distance, and while he steadily drew away from Endicott he was destined to remain in third place to the end. At the end of the 23d hour the Stearns had completed exactly 1,200 miles, and was four miles ahead of the old 24 hour figure. Poole, who drove at the finish, had several spirited brushes with Martin in the Houpt, and reeled off 53 miles in the last hour. As the checkered flag fell at the completion of the last lap, bedlam broke loose and horns, sirens and bugles saluted the creator of the new record. Excepting for tire stops, the Stearns had no trouble, and gave an exhibition of consistent running such as seldom has been seen on a small track. It averaged over 52 miles an hour during the entire race. The score by hours is given in the table:

**SUMMARY OF THE 24 HOURS RACE AT BRIGHTON BEACH**

| No. | Drivers and Cars. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Patschke-Poole, Stearns | 57 | 107 | 157 | 211 | 262 | 310 | 361 | 414 | 467 | 520 | 575 | 626 | 679 | 733 | 785 | 838 | 889 | 941 | 993 | 1048 | 1101 | 1148 | 1200 | 1253 |
| 2 | Whalen-C. Basle, Matheson | 52 | 104 | 133 | 183 | 236 | 284 | 333 | 387 | 439 | 487 | 540 | 590 | 637 | 688 | 737 | 781 | 830 | 878 | 924 | 979 | 1028 | 1078 | 1124 | 1178 |
| 3 | Martin-Hartman, Houpt | 45 | 92 | 141 | 188 | 236 | 288 | 294 | 294 | 295 | 347 | 383 | 436 | 486 | 535 | 583 | 626 | 669 | 719 | 768 | 817 | 870 | 917 | 919 | 964 |
| 4 | Endicott-Edmunds, Cole | 49 | 99 | 144 | 194 | 243 | 271 | 286 | 336 | 389 | 439 | 491 | 540 | 587 | 638 | 670 | 670 | 694 | 694 | 717 | 743 | 784 | 821 | 863 | 905 |
| 5 | Anderson-Taylor, Midland | 48 | 97 | 143 | 164 | 164 | 164 | 164 | 205 | 255 | 291 | 323 | 372 | 415 | 443 | 455 | 501 | 541 | 589 | 635 | 655 | 655 | * | | |
| 6 | Owen-M. H. Basle, Marion | 46 | 94 | 138 | 184 | 225 | 273 | 323 | 370 | 416 | 425 | 425 | 425 | 425 | 425 | † | | | | | | | | | |
| 7 | Trekas-Cobe, Allen-Kingston | 47 | 93 | 142 | 193 | 232 | 232 | 232 | 232 | ‡ | | | | | | | | | | | | | | | |

The figures for the first, eleventh and succeeding hours are intermediate records.
* Out. Broken crank shaft. † Out. Wrecked. ‡ Out. Broken crank shaft.

**Oldfield-Robertson Meet at Brighton.**

Although it was noised abroad that "Bill" Pickens was anxious to conduct an Oldfield meet at Brighton Beach track, New York, on September 3d and 5th, such proves to be slightly erroneous, for an announcement of the meet which was issued this week explicitly states that one Dan J. Smith, secretary to somebody who is something to somebody who owns the track, will have exclusive voice and responsibility in promoting the meet. However, Pickens is manager of Oldfield, who will appear at the meet, so the resourceful William may play the role of silent partner. At all events he seems to be on a safer side of the gate than was the case a few years ago when he and one Joseph M. Gates, a theatrical personage doing business as the "United $tates Motor Racing Association" gave a 24 hours race at Brighton. Oldfield and Robertson are cast for the leading roles in the coming meet. The program, which is identical for both days, is as follows: Mile time trials; 10 miles, 300 cubic inches and under; 10 miles, 600 cubic inches and under; 5 miles, free-for-all; one hour, 600 cubic inches and under.

**Foreign Makers Must Prove Stock Cars.**

To eliminate the unjust conditions which permitted the participation of foreign machines in sanctioned contests in this country without being required to file a certificate of description, the technical committee of the A. A. A. Contest Board has ruled that all manufacturers of foreign cars must file such description to meet the requirements of the Stock Car rules. The statement must be signed by the president or managing director of the said company and must be sworn to before the U. S. Consul of the district. Recently cases have arisen where foreign built machines which won races were disqualified for non-registration.

**Riverhead Road Race in Cold Storage.**

Although preparations for the event never went beyond the naming of a tentative date, the Motor Contest Association has announced that inasmuch as the Vanderbilt and Grand Prize races will be sufficient to satisfy Long Islanders craving for speed this year he will put the Riverhead road race in cold storage. However, it has been suggested that the real reason for the abandonment is the failure of the Riverhead residents to accept the association's proposition to tax all spectators a nominal sum to defray the expenses. Last year the association went broke or very near to it in staging the event.

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## CLOSE FIGURES IN TRUCK AWARDS

### Atlantic City Contest Results—Eight-Tenths of a Cent Determines Winner in Mammoth Class.

Interest in the award of prizes in the commercial vehicle test between Philadelphia and Atlantic City, August 12th and 13th, was confined mainly to the Mammoth Class, for trucks carrying in excess of four tons, when two of the contestants were separated by only eight-tenths of a cent cost. The judges finally decided in favor of the Gaggenau over the Mack, entered by Walter Wilson. The struggle was carried out to five decimal places, the winner's expense total being $4.535 to $4.54344 for the other. Each carried the same weight of load as well as going the same distance.

The Mack entrant was anxious to make the run over again, believing that he could win thereby. A public hearing was held in the matter. The differences hinged on two points. One was that the Mack (Wilson) truck was pulled out of a ditch by an electric. There was nothing to prohibit such aid, but Chairman Butler, of the American Automobile Association contest board, favored a penalty being imposed. The other crucial point was as to the amount of oil used by the Gaggenau. The ruling had been that every car should present itself full of oil and gasolene, nothing being said, however, about the drivers being loaded. The Gaggenau entrant declared that it was impossible for that truck to work well with the oil reservoir filled, but that the oil was up to a certain mark. He also stated that that point had been rendered clear to the referee at the outset and an offer made to submit to measurement, which was not accepted.

The technical committee agreed not to object if the contest committee did not offer opposition. The contest committee finally determined that one point should offset the other. The issue then reverted to the records, by which the Gaggenau led by eight-tenths of a cent margin.

The manufacturers' division was split into three classes, Class A being won by the Franklin, which had a load of 2000 pounds and an empty weight of 2558 pounds. The cost per ton mile was 2.531 cents. In Class B, the perfect score Garford, which was the only entrant, won. Its load was 4000 pounds, with an empty weight of 5860, the cost being 1.99 cents. The perfect score Frayer-Miller, with a load of 7000 pounds and empty weight of 5600, took Class C, with a cost average of 0.765 cents.

Every car used oil and gasolene of the same quality. These two together, or in the case of the electrics the kilowatts consumed, gave the most important item: cost. No separate account was kept of tire cost, yet that roughly entered into the calculations, since there was no exemption from time penalty following tire troubles. The cost of the trip and the per ton miles cost, however, are two different things.

Manufacturers' Division.

Class A, 1½ tons capacity or less, 15 miles an hour—Won by Franklin, W. R. Coughty, driver; Franklin Motor Car Co. entrant. Per ton mile cost, 2.531 cents.

Class B, between 3001 and 5990 pounds, 12 miles an hour—Won by Garford, W. O. Ritter, driver; Garford Motor Truck Works, entrant. Per ton mile cost, 1.99 cents.

Class C, between three and four tons, 10 miles an hour—Won by Frayer-Miller, Harry Webber, driver; Kelly Motor Truck Co., Philadelphia, entrant. Per ton mile cost, .765 cents.

Private Owners' Division.

Class A, 1½ tons capacity or less, 15 miles an hour—Won by Autocar, R. Crossing, driver; John Wanamaker, entrant. Per ton mile cost, .898 cents.

Class B, 3001 to 5999 pounds, 12 miles an hour—Won by Little Giant; M. Plush, driver; Suburban Auto Express Co., entrant. Per ton mile cost, 1.642 cents.

Class C, between three and four tons, 10 miles an hour—Won by Frayer-Miller; Harry Miller, Driver; Kelly Motor Truck Co., Philadelphia, entrant. Per ton mile cost, .705 cents.

Electric Vehicle Division.

Class A, 1½ tons capacity or less, 12 miles an hour—Won by General Vehicle; F. P. Ayres, driver; General Electric, entrant. Per ton mile cost, 1.013 cents.

Class B, 3001 to 5999 pounds, 10 miles an hour—Won by General Vehicle; H. Wright, driver; Bergdoll Brewing Co., entrant. Per ton mile cost, .706 cents.

Class C, between three and four tons, 10 miles an hour—Won by Commercial Truck; Karl Bey, driver; American Brewing Co., entrant. Per ton mile cost, .792 cents.

Mammoth Division.

Exceeding four tons, 8 miles an hour—Won by Gaggenau; P. W. Gaylor, driver; Benz Import Co., entrant. Per ton mile cost, .736 cents.

### Hearing on the Glidden Injunction.

Another chapter in the legal dispute over possession of the Glidden trophy was written last week when Justice Harrington Putnam, sitting in the second district of the Supreme Court of New York, in Brooklyn, gave a preliminary hearing on the application of H. O. Smith, of the Premier Motor Mfg. Co., for a continuation of the injunction obtained to prevent the American Automobile Association delivering to George W. Dunham or the Chalmers Motor Co., the Glidden trophy. Justice Putnam reserved decision.

## LONG ISLAND WINNERS ANNOUNCED

### Brooklyn Dealers Run Awards Include a Bouquet for a Speeder—His "Consistent Running" Commended.

After a lot of powerful smart figuring that may be supposed to have consumed most of the waking and sleeping hours of A. R. Pardington, referee, for ten days, the complete results of the Brooklyn Motor Vehicle Dealers' reliability run on Long Island, August 9th and 10th, were announced last Saturday. No protests have been filed and the announcement in general is not calculated to prove sensational, but one bouquet, at least, tossed by the referee, amuses the insiders. The car driven by the "speedy youngster," who came in for unofficial criticism at the time, is commended for "consistent running," along with others that really tried to respect the rules. Over many short stretches the youngster went at 40 miles an hour or more repeatedly, coming to full stops to even up his schedule. He was not only seen doing it, but boastingly volunteered the intelligence indiscriminately to the other contestants whom he covered with dust. The awards:

Division A, cars selling for $800 or less—Won by D. M. Bellman, Hupmobile.

Division 2A, cars selling for $801 to $1,200—Won by W. H. A. Bruns, Hudson.

Division 3A, cars selling for $1,201 to $1,600—First prize won by W. J. Houldcroft, Crawford; second prize by E. T. Bloxem, Maxwell.

Divisions 4A, 5A, 6A, 7A, touring cars selling for $1,601 or more—Won by G. M. Wagner, Columbia.

Divisions 4A, 5A, 6A, 7A, runabouts selling for $1,601 or more—Won by I. C. Kirkham, Columbia.

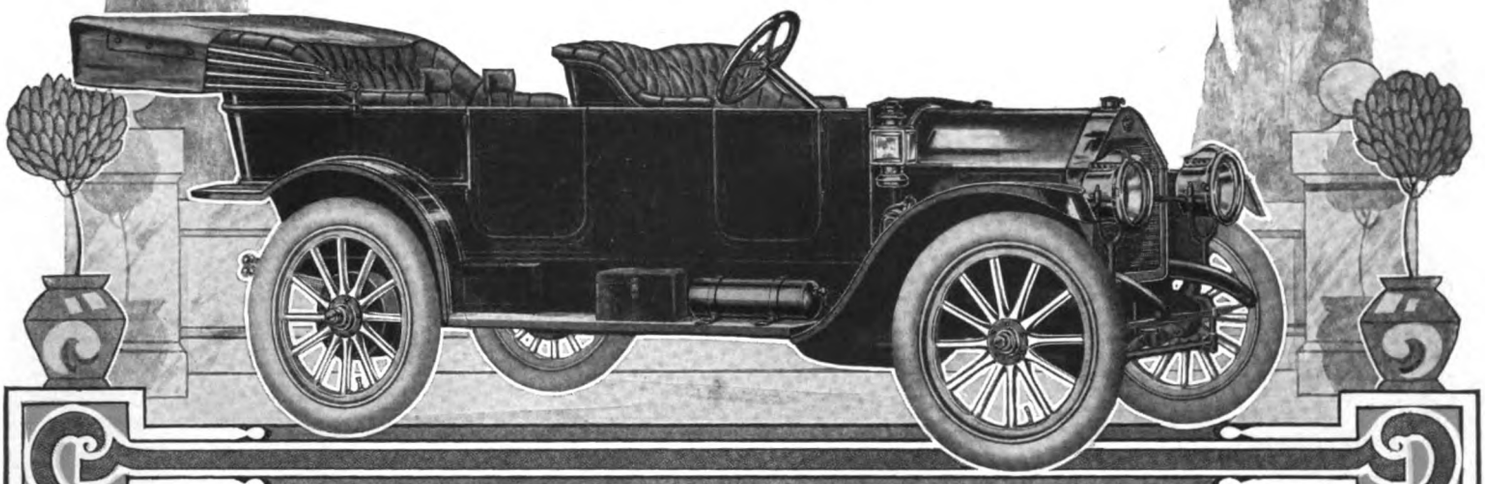
Touring division, most consistent running car—First prize won by John McCormick, Ford; second prize by H. G. Woodworth, Cadillac.

### World Tour Planned for Oldfield.

According to the resourceful William H. Pickens, he and his Barney Oldfield are to make a tour of the world this fall and incidentally gather in some foreign cash in return for exhibitions. Pickens figures that millions of foreigners who have heard of Oldfield are just dying to see him, and has laid out an itinerary which calls for his first performance at Honolulu, H. I., the first week in December. Where there are no tracks exhibitions will be given on the roads, for, according to Bill, the natives of the Far East are not particular about the course and will "come across" generously to get a glimpse of the Peerless One. At least, that is the gist of an announcement circulated at Worcester last week.

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# Westcott 1911
## 45–50



# Both the Car and the Price Are the Sensation of the Season

### Not a One Feature Car But a Car of Proven Essentials

The ***Westcott 45-50*** is a consistently balanced combination of proven essentials—strength, simplicity, absolute silence, light weight, high power, perfect lubrication, easy manipulation—a car in which the strength and efficiency of no one feature has been sacrificed for any other—in which speed has not been sought at the expense of comfort, safety and economical up-keep—yet there is always an abundant reserve power to climb the steepest hills, without perceptible effort or to do 50 miles an hour, when roads permit—and at minimum operating expense.

### The Car that Ends the Era of Artificial Values

It would be the sheerest folly to approach the motor car buying public in these days of strenuous competition in moderate priced cars with anything but absolutely the best value for the money ever offered.

Measured by perfect motor car satisfaction—appearance, durability, dependability, performance and economy in up-keep—the ***Westcott 45-50*** is the best motor car value money can buy and the greater your knowledge of motor cars, the keener will be your appreciation of this, the car that ends the era of artificial motor car values. No car like it has ever been sold for less than $3,500.

**Westcott 45-50**
**7-Passenger**
**Touring Car**

*Model G, Fore Door body, illustrated above, equipped with two side and one tail oil lamps, two solar gas lamps and Prest-O-Lite gas tank, robe rail and foot rest, complete set of tools including jack, pump and tire repair kit, battery and tool boxes,*

**$2,250**

### It Looks An "Aristocrat"

—and it is, too, in all save price and we make no apologies for that. Any car now selling for $3,500 if built in the ***Westcott*** factory by the ***Westcott*** labor saving, economical methods, could be sold at the price of the ***Westcott 45-50***—if the makers were satisfied with the ***Westcott*** profit per car.

If your ideal car has been one costing $3,500 to $5,000, a revelation now awaits you. In appearance and style the ***Westcott 45-50*** is distinguished in the company of the most expensive cars. Its perfect, silent mechanism, graceful, racy outlines, richness of finish, its interior and exterior refinements are those you have hitherto regarded as distinctive of and exclusive in the very highest priced cars.

### Money Cannot Buy a More Perfect Car

You cannot get more than the ***Westcott 45-50*** offers, no matter what you pay for it. That's why the ***Westcott 45-50*** is a startling innovation. If you are thinking "motor car" this year, it will pay you to completely satisfy yourself that it is utterly impossible to buy a better built car at any price. It is the ideal car that meets the requirements of family and business as no other car can.

**Specifications on Inside Pages**

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Westcott 45-50 Roadster,
*Model H, furnished with Artillery seats,*

**$2,000**

# The Absolutely Dependable Car

Our claims are broad and your guarantee that this car is all we claim for it is the reputation of its manufacturers—for many years one of the largest and best known makers of vehicles in the world, composed of men with national reputations for creating the best. Such a firm could not afford to stake its reputation and invest millions of capital in any car that was not predestined to be a success from its very first inception—unless each car manufactured was so thoroughly satisfactory to its user that it sold others—and lots of them.

## Easy to Manipulate—
## You Don't Need a Chauffeur

One of the distinct advantages of the ***Westcott 45-50*** simplicity is that you can learn to operate a ***Westcott 45-50*** in less than an hour. There is nothing to fuss with or worry over—you have no need of an expert mechanician—you can get away quickly, stop quickly—and it's as easy to steer and manipulate as a runabout—you can be your own chauffeur and personally enjoy all the real thrills of pleasure that come from driving a ***Westcott 45-50.***

**Westcott 1911**
**45-50**

## Comfort In Touring

The ***Westcott 45-50*** is equipped with 36-4 Diamond tires that will give you the very best tire service. The big 36 inch wheels assure wonderful road-smoothness and the splendid semi-elliptic spring equipment makes easy riding and saves the wear and tear on the machinery. You can ride all day, every day, with comfort.

This means more mileage, more service every day in the year, under all sorts of conditions—means dependability, long life and economical up-keep.

## These Cars Stand the Test of Comparison

Compare these imposing looking 45-50 H. P., 4-cylinder, 7-passenger and 5-passenger ***Westcotts*** with any of the best American cars. You will not find more perfect engines, or more vanadium and nickle steel or a greater proven superiority than you will find in the ***Westcott.***

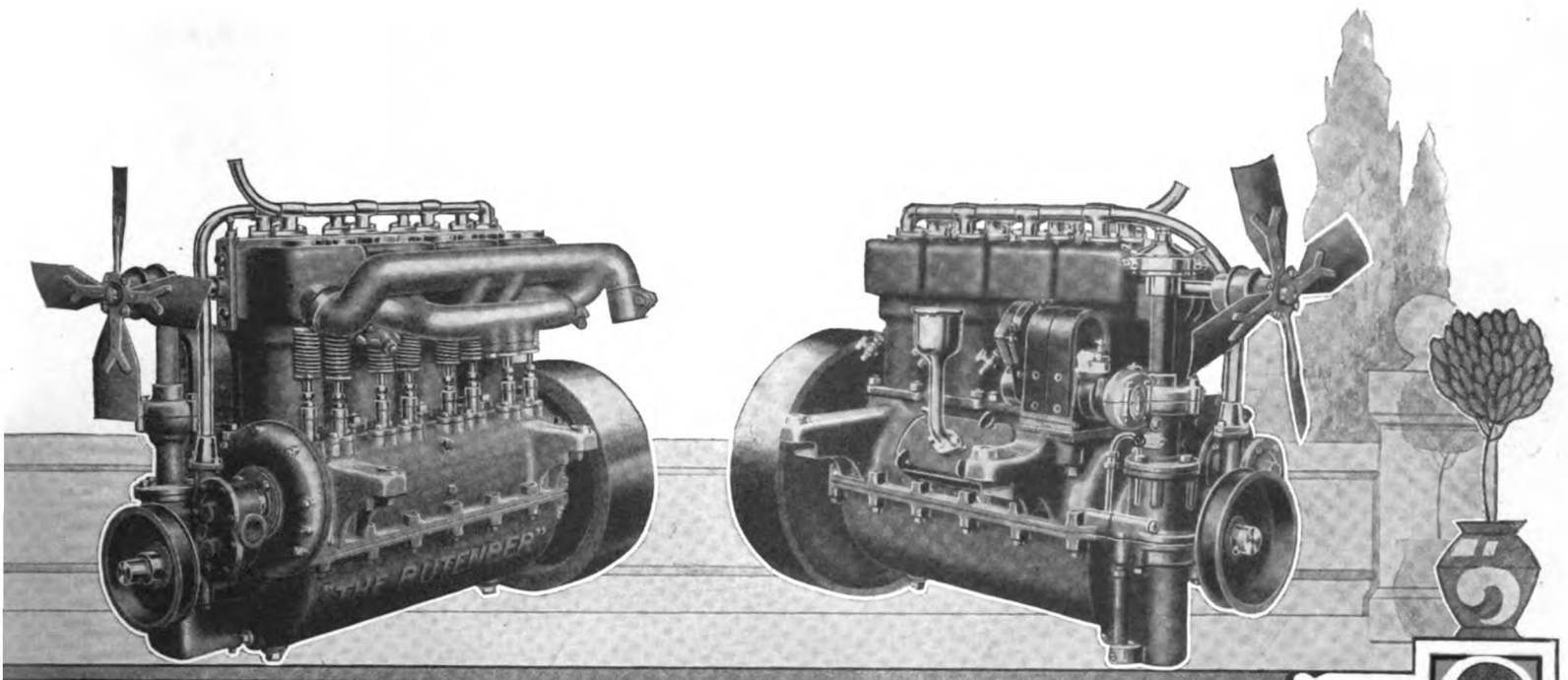
After comparison, pass judgment on the ***Westcott 45-50*** by any standard you choose—its tried and proven power plant—the simplicity and flexibility of its control—its pleasing, graceful outlines and luxurious appointments or its gloriously comfortable riding qualities.

Write for catalog and name of nearest local agent.

**Westcott Motor Car Co., Sales Department, Indianapolis, Ind.** **Factory, Richmond, Ind.**

**"It Takes You There and Back—Without Fuss—Year In—Year Out—and More**

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# Its Specifications

**The Motor**—The 45-50 H. P. Motor, 4¾ inch bore, 5 inch stroke, water cooled Rutenber, one of the best ever put in a motor car, is housed under a big, handsome steel hood. Its 4 cylinders are cast separately, as is always the case in building the best engines, from a special Gray Cast Iron Mixture and are accurately ground to a standard size and individually mounted on the crank case of special aluminum alloy, giving it great strength and durability. The case is divided horizontally into halves. The upper half containing all of the bearings—the lower half serving only as an oil pan.

The supporting arms are cast on the upper half of the crank case so that easy adjustment of the bearings may be obtained without disturbing any of the connections on the motor.

All parts of these motors are made interchangeable so that repairs are always obtainable quickly and at a nominal charge.

**Bearings**—Phosphor and Babbit bronze, anti-friction bearings, accurately shaped to a perfect running surface, are employed wherever there is wear and strain.

**Carburetor**—Its Schebler Carburetor needs no introduction—it is simple in construction and easy of adjustment.

**Ignition**—There are two complete ignition systems—the Remy Magneto geared directly to the engine and a regular battery system for emergency.

**Lubrication**—The lubricating system is the best to be found—improved splash system, large tank, two gallon capacity, under motor. Oil circulation by positive gear pump—certain in operation—economical in consumption of oil.

**Crank Shaft**—The crank shaft is drop forged from the best of steel, ground accurately to size and having **five** bearings instead of three, as found on most crank shafts.

**Transmission**—The transmission is of the selective sliding gear type, three speeds forward and reverse—easy and accessible. The sliding gear is squared, hardened and ground. All shafts being hardened and ground running in a Timken Roller Bearing. The case is of aluminum and so shaped as to form a receptacle for oil.

**Wheel Base**—It has a wheel base of 120 inches. The body, constructed along graceful lines, large and roomy, is wholly of metal, over a hard wood frame, mounted on a frame of pressed steel with sub-frame for the support of engine and transmission giving extraordinary strength to the entire car.

**Wheels and Tires**—The wheels are of the large Artillery type, 36 inches—fitted with quick detachable rims and 4 inch Diamond Tires.

**Control**—Spark and throttle levers, top steering column, also foot accelerator.

**Drive**—Shaft drive. Timken Roller Bearings.

**Clutch**—Cone type, leather faced-springs under leather.

**Axles**—Front axle I beam drop forged and in one piece. Rear axle Timken full floating.

**Springs**—Semi-elliptic in front and rear. Front 40 inches, rear 56 inches.

**SteeringGear**—Positively the finest steering device ever made—gearless—readily adjustable for wear and absolutely non-reversible. Lost motion taken up. 18 inch mahogany wheel, aluminum spider showing through wood.

**Brakes**—Two sets. One external contracting—service brake on outside of drum operated by foot pedal. Emergency internal expanding brake on inside of drum operated by hand lever, which also dis-engages clutch.

**Frame**—(Dropped) pressed steel with sub-frame for supporting engine and transmission, width in rear 34 inch, front 30½ inch, narrow in front to allow short turn.

**Clearance**—11 inches.

**Tread**—56 inches.

**Weight**—3,000 pounds.

**Painting**—Regular.

**Equipment**—Two side and one tail oil lamps; two solar gas lamps and Prest-O-Lite gas tank; robe rail and foot rest, complete set of tools including jack, pump and tire repair kit.

## Westcott 1911 45-50

**Nearly Fulfills the Requirements of Everybody Than Any Other Car Made"**

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# Westcott 1911
## 45–50



## Here's The Car—Are You The Dealer?

You know, so do we, that it's nothing less than absolute folly in these days of strenuous competition to manufacture or offer to motor car buyers, anything but absolutely the best motor car value ever put up for the money.

***The 1911 Westcott is just this thing.***

Our vigorous advertising is creating a tremendous demand for the ***1911 Westcott*** all over this country. Fully $50,000 is being expended to properly bring it before the motor car buying public.

Our advertisements are being read by millions and our literature is being mailed to thousands—probably to hundreds in your own locality.

The thousands of inquiries received as a result of this comprehensive, national advertising campaign, will be immediately turned over to dealers in the localities from which they come.

***Westcott*** dealers get all the benefit of our advertising—only a small part of which is shown in this bulletin.

Our output is limited, not by our factory capacity, but by the absolute restriction that each car leaving our factory must take with it our unqualified guarantee.

While the ***1911 Westcott*** and its price are, indeed, the motor sensation of the season, we shall not indulge in a sensational selling season at the expense of quality.

**Westcott 45-50,**
**5 Passenger**
**Touring Car**

*Model F, with regular Touring body. Equipped with two side and one tail oil lamps, two solar gas lamps and Prest-O-Lite gas tank, robe rail and foot rest, complete set of tools including jack, pump and tire repair kit, battery and tool boxes.*

**$2,000**

The fulfillment of every claim made for the ***1911 Westcott*** is backed by the reputation of its makers—by millions of capital.

It needs no argument to convince you that such a concern could not, for an instant, afford to stake its reputation and capital in a car not predestined to be a success from its very first inception—unless each car sold gave such assurance of complete satisfaction to its users that it sold others—and lots of them.

Our 1911 output is more than half contracted for already. Wherever we have open territory, we are ready to close agency arrangements with the most desirable dealer in each locality until our output is entirely taken.

Are you the man we can depend upon to supply the demand our advertising is creating—to get all the business that can be developed in your territory?

Do you want to participate in the benefits of our advertising?

If you do, the first move toward a greater motor car business is to get in touch with our Sales Department. Right now.

If minutes ever meant dollars to you, this is the moment. Your territory may be open today—closed tomorrow.

It wants but a stroke of your pen to get you properly lined up for a bigger, better, more profitable season than you have ever had before.

Write us today—wire us, if you want to or phone us.

**Westcott Motor Car Company**

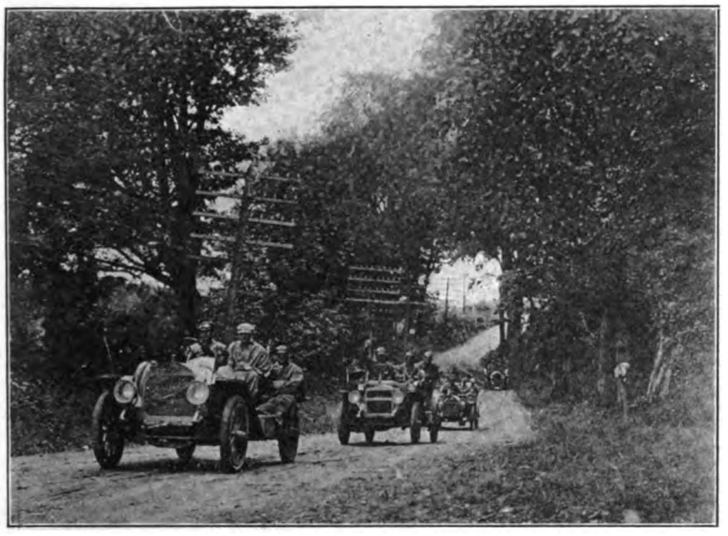
**Sales Department, Indianapolis, Ind.** **Factory, Richmond, Ind**

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## GET MORE TOURING THAN HISTORY

### Munsey "Historic" Tour Develops Many Adventures—Perfect Score Division Large After Eight Days.

Up to Wednesday night, 24th inst., the Munsey Historic Tour had covered all but about 374 of the 1.550 miles, more or less, of its run. Inasmuch as the run around Lake Champlain was cut out, to say nothing of the changes that may follow, the journey is likely to prove about as elastic as that conducted under the same newspaper auspices last fall. Somehow the historic side of the trip seems to have gone into the discard. As a tour, however, the affair is maintaining a highly gratifying percentage of clean scores. There were 17 of them at last accounts as against only seven penalizations.



ON THE HIGHWAY NEAR PORTSMOUTH, N. H.



WHEN THE MUNSEYITES REACHED PORTLAND

The perfect score cars, as they are designated on the tour, are the following: Columbia, Washington No. 5, Washington No. 6, Ford No. 8, Corbin No. 11, Brush No. 13, Brush No. 14, Regal No. 15, Pierce-Racine No. 16, Enger No. 17, Krit No. -9, Cino No. 22, Stoddard-Dayton No. 24, Maxwell No. 25 and Kline No. 31.

The penalized division is composed of the following: Warren-Detroit No. 10, 4 points; Great Western No. 18, 2 points; Staver-Chicago No. 23, 242 points; Crawford No. 27, 867 points; Inter-State No. 29, 111 points; Ford No. 30, 8 points, and Moon No. 32, 2 points.

On Thursday morning, 18th inst., the retinue left New London, to which point the penalizations were last week noted, for Boston via Narragansett Pier and Providence. At the Pier a stop of an hour was made so that Constable Cross, "Doc" Arnold and the roulette wheel, operated, not by a motor, but bellows, could be pointed out. The noon check was Providence, where a delegation of Boston dealers and motorists joined the party for escort duty. During the day, the third of the tour, there were three penalizations. Clarence LaMar, Great Western, getting two points for repairing an ignition terminal; Fairman, Kline, one point for cleaning sand out of the gear lever quadrant, and Ross Henwood, Ohio, 34 points, three of which were for putting on a muffler nut and the others for gasoline pipe repairs.

Harry Lincoln of the party was late in reaching the Modern Athens, as he was fined $15 for speeding in Providence. The police there had set a trap and tried to catch the pace maker, but that being impossible they grabbed the next driver, who was Lincoln. He asked for a receipt for his fine money, but the judge told him his liberty was receipt enough.

From Boston the way led to Portland. During the fourth day there were two penalizations. Emery Kudsen, Staver-Chicago, was awarded 169 points for a broken spring and work on a rear differential, which caused tardiness, while I. W. Dill and G. H. Covert, Inter-State, got 62 points for labor on transmission gear. Portsmouth, where the ale comes from, engrossed the party during the noon stop.

At Gloucester a committee of motorists met the "excursionists" and overloaded their cars with booklets advertising the city, including the superior boneless codfish to be caught off Cape Ann. So much entertainment extended near by caused one of the Newburyport papers to observe that the Munseyites went through their city "without a yip except that emitted from their own horns."

The fifth day the road stretched from Portland to Bethlehem, N. H., with a luncheon stop at Fryburg, Me. During that run the Maxwell runabout was withdrawn, being disabled through stripping its gear. A. S. Hardart, Elmore, was penalized six points, three for an engine stop and three






GENERAL VIEWS AT ONE OF THE STOPPING PLACES ON THE MUNSEY TOUR

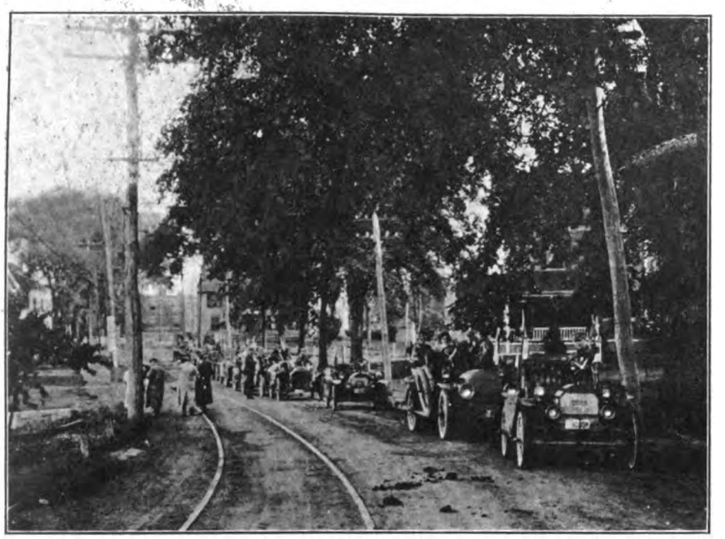
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for a broken terminal. Emery Kudsen, Staver-Chicago, received 73 points, and Roy M. Upton, Moon, one point. Sunday was spent at Bethlehem in the White Mountains.

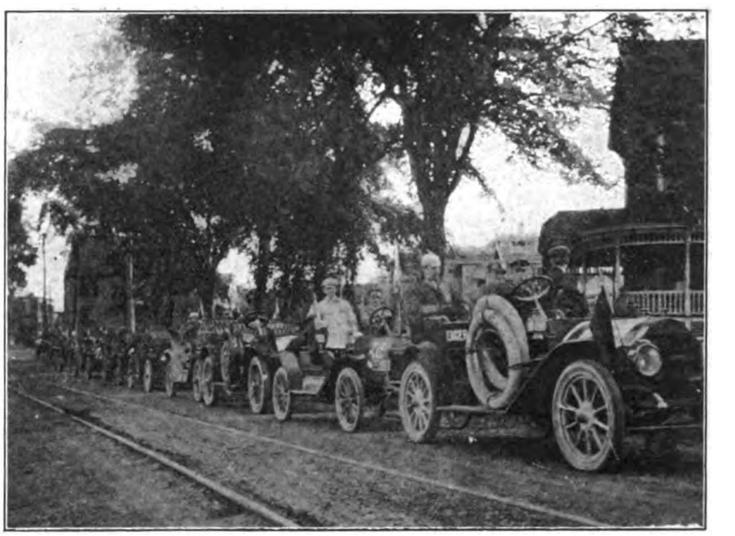
The sixth day took the tourists from Bethlehem to Burlington, Vt., the noon stop being at Montpelier. The first large place reached was St. Johnsbury, where street souvenirs and refreshments were distributed. At Montpelier the Vermont Automobile Club and the board of trade had the fingers of the glad hand well lubricated. The Montpelier Journal requested local motorists to decorate their garages, "even if they were constables last year," and to use "paper flowers or any other respectable mode of dressing in case golden rod and sun flowers ran short for decorations." In addition to the natural or artificial flowers, a profusion of pretty girls was also requested by the press. Governor Prouty was on hand, by special arrangement with Munsey's Magazine, as an "added attraction," and besides there was a band concert. All the tourists took to their legs, parading behind the band.

The day's journey was episodic, La Mar, in the Great Western, being wrecked just outside Montpelier. He ran his car into the side of a covered bridge, on a sudden turn, to avoid hitting a carriage driven by a woman. He said she was on the wrong side of the road, but the lady set up an opposite contention. It was on this day, also, that W. S. Hardart, who won the tour last year, heard the news. His Elmore car was disqualified because its manufacturer had omitted to file with the American Automobile Association a proper manufacturer's certificate. Hardart had been allowed to start on the understanding that the Elmore company would furnish the document. The car is continuing as a non-entrant. F. H. Peabody, Ford, received eight points for a deranged strut rod joint. A. A. Miller and Walter Scott, in the Crawford, which up to that time had gone unscathed, got 435 points for work on the transmission and 43 points more for tardiness at the noon control.

At Burlington, a change of route was announced. A trip around the north side of Lake Champlain had originally been arranged. But somehow the lake had been forgotten all about by the advance agents. The ferry from Chazy Point, Vt., to the New York side required six hours to transport the concourse, so Referee Ferguson divided the party in three lots and sent them by ferry direct. The first section went over the night before, the second at 5 a. m. and the third later in the morning. Saratoga was the night stop, with the seventh day noon stop at Elizabethtown. The trip brought the withdrawal of the Glide, which broke a crank shaft bearing that could not be replaced. There were so many speed traps on the fine roads in the Lake George region that the pace maker exercised unusual care.



READY TO CHECK IN AT WEST POINT CONTROL



MUNSEYITES WAITING IN LINE AT PROVIDENCE

### Two Days' Racing for Indianapolis.

Instead of a three days' meeting as originally planned, the coming speed carnival on the Indianapolis (Ind.) Motor Speedway next month will be a two days' session, with one day's intermisison, the dates being September 3d and 5th, the latter being Labor Day. In announcing the program through the issuance of entry blanks last week, the management has made a departure from previous custom and will not directly solicit nominations from manufacturers, depending on the allurements of the $8,000 in prizes which are offered to attract the entries of the big stars of the racing firmament. In the hope of making the meet of an international character, entry blanks were sent to eighteen foreign manufacturers as well as to a majority of the American makers. The stellar event on Saturday, the opening day, will be the 100 miles race for the Remy Grand Brassard. A five miles race for amateurs, a 100 miles free-for-all and record trials will be the other nobby offerings, and of course there will be the usual string of class events. On Monday an even better card has been arranged with a 200 miles free-for-all with $1,000 to the winner as the topliner. The 50 miles free-for-all with $800 to the winner is another which should attract a good field, while class events comprise the remainder of the day's bill.

### Motordrome Fever Reaches Galveston.

After subsiding temporarily the motordrome fever seems to have broken out again in various sections of the country, the latest city to become infected with it being Galveston, Tex. At a recent smoker given by the Galveston Automobile Club a speedway project was taken up and inside of an hour over $5,000 was subscribed toward a fund of $15,000 for a race course. The proposed motordrome will be situated near the beach and will be a combination beach speedway and circular dirt track.

### Marmon Cars to Race on Speedways.

In announcing their retirement from track racing the Nordyke & Marmon Co., Indianapolis, Ind., intended that it should be understood that such abstention should apply to half mile and mile dirt tracks only. It appears than an erroneous impression has arisen that all tracks were included To correct which, it is now made plain that Marmon cars will continue their vigorous campaign on specially built motor speedways like Indianapolis, Atlanta and Los Angeles.

### Omaha to Join Speedway Circuit.

One more city, Omaha, Neb., will join the motor speedway circuit when the new track at the old fair grounds is completed. The Omaha Speedway Co. is back of the project, and the plant represents an investment of $20,000 on track and buildings.

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## JERSEY WANTS $7.40 FROM A. A. A.

### Cannot See Why Tax Bill Should be Less than Last Year—Tangle in the Bookkeeping.

Seven dollars and forty cents in tax money, which may or may not be used by the American Automobile Association, is giving an astounding amount of worry to the New Jersey state board of assessors. It seems that the three A's in common with everybody else who can in the motor realm is seeking to shake the dust of that commonwealth off its shoes and say an eternal farewell. That Jerseyites understand it is probably the last crack they will ever have at the organization seems to account for the activity in the matter of Irvine E. Maguire, secretary of the assessors.

The A. A. A., a national corporation, was chartered in New Jersey, five years ago, as a corporation. At the annual meeting held in New York City, November 20th last, action was taken to dissolve the stock holding corporation under New Jersey law and to incorporate the membership under Connecticut law. Such change would place the association on a purely membership basis, giving to each member, whether a state association, club or individual, an equal footing in its affairs. For some reason the dissolution has dragged along for eight months, until it is declared that another year's taxes are due.

A paid up bill was demanded by the gather-them-in-board at Trenton. The tablet presented was not allowed to dissolve on the principle of no pay, no cure. The point at issue is over the amount of the bill for services. The concern had an authorized capital of $125,000, only a small part of which ever was paid in. In fact, the official return to the Jersey assessors last year showed the total of stock issued to be $17,160. That made the tribute for lubricating purposes at the state capital $17.60, as corporations are taxed on the amount of stock issued. This year the return showed only $10,020 issued, on which the tax would be $10.20.

When the secretary of state found the association wanted to change its legal residence, the room clerk immediately looked at the cashier's (or comptroller's) books and refused to give the porter word to release the baggage until the guest had cancelled its indebtedness. In this case, however, an affidavit will be demanded before clearance papers are issued, in view of the "great discrepancy" ($7.40) that exists.

C. Thaddeus Terry, the only official of the three A's who has absolute grasp of the situation, is on a vacation and search among the cash books fails to reveal just where the differences lie. A former officer is thought to have fallen into a clerical error in making the returns.

Horace Bonnell and Amos G. Batchelder, the two busy B's of the three A's, through misfortune rather than fault between their periods of toil are slumbering in Jersey, making it handy if the assessors wished to pounce upon them for $7.40. Other New Jersey officers of the association are Carl Roebling, Trenton; Walter Edge, Atlantic City; Dr. J. N. Faulkner, Paterson; F. A. Croselmire and William F. Kimber, Newark; W. H. Fulper, Flemington; J. H. Hinners, Edgewater.

### Fine Point That Decided Damage Suit.

That it makes a good deal of difference on which side a horse is struck by an automobile, if the owner expects to collect damages, has been forcibly impressed upon William Blaze, of Hardville, Neb. Blaze was driving a horse-drawn wagon, when an automobile approached from behind. As the wagon carried no lamps, the motorist could not see it until within a few yards and, after blowing his horn, struck the horse fairly on the left side. In the legal squabble following the death of the equine, the lawyer for the motorist pointed out that the horse could not have been struck on the left side, had not its driver tried to turn out in the wrong direction. The jury agreed with his view of the matter and awarded the nominal damage of $1 to the owner of the horse.

### Says Apprenticeships Are Slavery.

Apprenticeship systems, such as prevail in a number of automobile factories, particularly in Detroit, Mich., received a blow when Judge Tappan, in the circuit court at Port Huron, Mich., indicated that an apprenticeship contract is virtually a slavery bond and is therefore illegal. The decision was in a verdict in favor of Vassar Smith, a young man who in 1901 bound himself as an apprenticeship to the Draper Mfg. Co., absented himself from the job two years later, and subsequently was arrested for alleged breach of contract. "This contract," said the court in directing a verdict, "inaugurates a system of slavery to minors and the court therefore finds it unconstitutional." The case is represented as being without precedent in any court of record in the United States.

### Damages for Horse's Nervous Shock.

"Nervous shock" to a horse is a new ground for damage suits against motorists, as brought forth in a suit by George W. Tapper against the Syracuse Motor Car Co., of Syracuse, N. Y. He claims that in a collision between one of the company's automobiles and his horse, the latter, while not seriously cut or bruised, sustained a nervous shock which has developed in it a number of mulish and intractable instincts, so that it now kicks and is unmanageable, reducing its $450 value to almost nothing.

## ROOTING HARD FOR RECIPROCITY

### Convention to Promote Changes in New Jersey Laws—Modifications Demanded —Issue Becomes Acute.

Fully 400 motorists turned out for the Newark mass meeting last week of the New Jersey Automobile and Motor Club to discuss remedial horseless vehicle legislation in that state, and the gathering proved as lively as it was large. Clarence H. Bissell, president of the organization, was chosen chairman and set the ball rolling by a short speech in which he touched upon the retaliatory laws against New Jersey being passed by many states and the harm done to business by unwise automobile legislation.

J. B. R. Smith, state commissioner of motor vehicles, advocated an interstate convention to consider a general plan of legislation, but the idea did not meet with favor, as it was thought it would not bring speedy enough action.

A. G. Batchelder, chairman of the executive board of the American Automobile Association, declared that in traveling about the country when he was obliged to tell people that he was from New Jersey they simply throw up their hands and observe, "Well, that is the state with a Chinese wall built around it," so you can see how New Jersey is taken throughout the country.

Dr. G. Vogt said: "We want permission to go into other states without paying this registration fee, and we want it now, at once. What is the use of waiting for the next legislature to see what they intend to do? There are three parties in this state now; they are the republican party, the democratic party and the senator from Somerset. I contend that if the republican party can reach the senator from Somerset, we shall get what we want, and he will be done for." Dr. Vogt took exception to the remarks made by Commissioner Smith; said he thought that the commissioner was talking from the stand of a paid servant.

Others who spoke were J. H. Wood, president of the Associated Automobile Clubs of New Jersey; George Paddock, president of the New Jersey Trades' Automobile Association, and George Post, president of the North Jersey Automobile Club.

Former Governor Franklin Murphy wrote a letter, in which he said: "I heartily favor such changes in the laws as will give New Jersey motorists reciprocal privileges."

Meantime members of the Automobile Club of Hudson County, with headquarters in Jersey City, have passed resolutions similar to those drawn up at the Newark gathering.

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## KNIGHT ENGINES IN NEW FORM

**Panhard, Minerva and Rover Producing Sleeve Valve Motors—Changes from English Daimler Type.**

Probably no modern automobile development has received a greater amount of attention than has the Knight engine. At the same time, despite the fact that a number of automobile manufacturers in England and Europe have taken out licenses to produce engines of the sliding sleeve valve type, it is not until very recently that active preparations have been made to market such products. Up to this time practically the only firm producing the engine has been the English Daimler company, which is the concern with which Charles Y. Knight, its inventor, is associated. It is therefore with considerable interest that the announcement is received that the sleeve valve engines are about to be produced in several other quarters.

Perhaps the most interesting of the new Knight engines is that produced by the Panhard-Levassor company. Although the Panhard license was taken out more than a year ago, and it has been understood that the new engine was "in the works," its regular production has only just been announced in connection with a new model. The Panhard-Knight engine is the same in most respects as the standard Knight-Daimler. The arrangement and construction of the sleeves, the driving eccentrics and silent chain operating gear connected with the crank shaft are the same. In the matter of lubrication, however, some alterations have been made.

In the Knight-Daimler engine, lubrication is effected through the medium of a series of channels arranged beneath the cranks, from which the oil is raised to the connecting rod bearings and circulated by the aid of scoops on the crank arms. The Panhard is a version of the popular constant flow system. The oil is circulated by means of a small pump on the rear end of the eccentric shaft. Leads from the pump conduct the lubricant to one side of the upper section of the crank case, from which point it is distributed to the bearings. The five-bearing crank shaft is supported entirely in the upper section of the case, the lower section forming merely a removable oil pan of the conventional style.

Tests made with this engine are said to have shown its power to range from 25 horsepower at 725 revolutions, to 41.5 horsepower, running at 3,100 revolutions. In the course of a road test, its consumption is said to have worked out at approximately 17 miles to the gallon. The four cylinders of the motor are cast separately, as in Daimler practice, and the bore and stroke are, respectively, 100 by 140 millimeters, or, roughly, 3 15-16 by 5½ inches.

The Minerva company, in Austria, also has just produced a new version of the Knight plan in the form of a 16 horsepower unit for light car use. Besides being of lower power than other motors of its class so far produced, the performance of this particular type will be watched with interest, for the reason that it is the first Knight engine to be built with cylinders en bloc.

In England a new follower of the American inventor has sprung up in the Rover company, which is now building a 12 horsepower car equipped with this engine, the unit being of two cylinder form and having a bore and stroke of 96 by 130 millimeters, or about 3¾ by 5⅛ inches. It is said of this motor that when tested out on the bench, it proved to be unusually silent, and to be free from many of the sounds which ordinarily distinguish a two cylinder poppet valve engine.

### Queer Phase of Motor Mail Delivery.

Indianapolis, Ind., is in sore straits at present in connection with its mail delivery and collection system. Some time ago the local post office installed several Overland cars for this purpose, under a contract covering a period of nine months. Now that the nine months almost have expired, the Overland company declines to furnish cars under the old agreement, and demands a contract running for at least four years, as well as providing for one more car. The post office authorities could not or would not agree to such an extension of the contract term, and invited competitive bids. To their surprise no automobile company submitted a bid, as all were frightened away by the time limit if the contract.

The Willys-Overland Co., in order not to tie up the entire mail delivery service of the city, has signified its intention to continue its cars in the service of the post office for another nine months. In the meantime it is hoped that some way will be found out of the dilemma, and that the government will accede to the request for a longer term of contract.

### Rush Schedule for a Big Shipment.

One of the largest single shipments of automobiles that ever went into the Northwest was forwarded recently over the Chicago Northwestern railway from the factory of the Overland Motor Car Co., in Toledo, Ohio, to the Minneapolis agency. The shipment consisted of 25 double decked railroad cars, each containing six motor cars, or 150 cars in all. The shipment is regarded as a record one for the reason that the train was rushed through on special schedule, in order to make up a shortage of cars for delivery. The entire journey occupied a little less than two days, which practically equals the schedule of passenger trains between the two cities over the same route.

## ELUSIVE CARBURETTER TROUBLES

**Variations from the Proper Fuel Level Cause Puzzling Difficulties—Methods of Making Necessary Adjustments.**

Happily for the average motorist who looks after his own machine, the ordinary carburetter as a rule will run for long periods with little or no attention beyond an occasional and thorough cleaning. Nevertheless, when it does go wrong there is no part of the machine that is apt to prove more troublesome. And it is worth noting that one particular ailment to which it is subject seldom is recognized, despite the fact that it may be responsible for considerable irregular running.

While some carburetters are provided with adequate means for regulating the fuel level, others are made with fixed adjustment; in either event many operators, some of them "graduates" from "schools," are not aware of the importance of maintaining the level at the proper point. Many experienced operators, it further may be observed, may be misled in respect to float level troubles by reason of the lack of adjusting means in the particular carburetter under examination.

Where method for adjustment is provided, it is a comparatively simple matter to make correction for any loss of regulation, and whenever the mixture develops otherwise inexplicable tendencies to undue weakness or strength throughout the speed range of the motor, it is well to inspect the level to see whether it has been altered as a result of wear in the regulating mechanism. For this is the real seat of not a little carburetter trouble.

Where no adjusting means is provided, the wearing of pivot points, bending of levers or abrasion of the needle valve should be looked for. In each case the remedy must be a special one, according to circumstances. It is needless to add that where parts are found to be weak, as where bending of parts results from normal use, rather than from abuse at times when the carburetter is dissected, it is necessary to replace the faulty members if one desires perfect mixtures.

### Tells of Rubber's Geography.

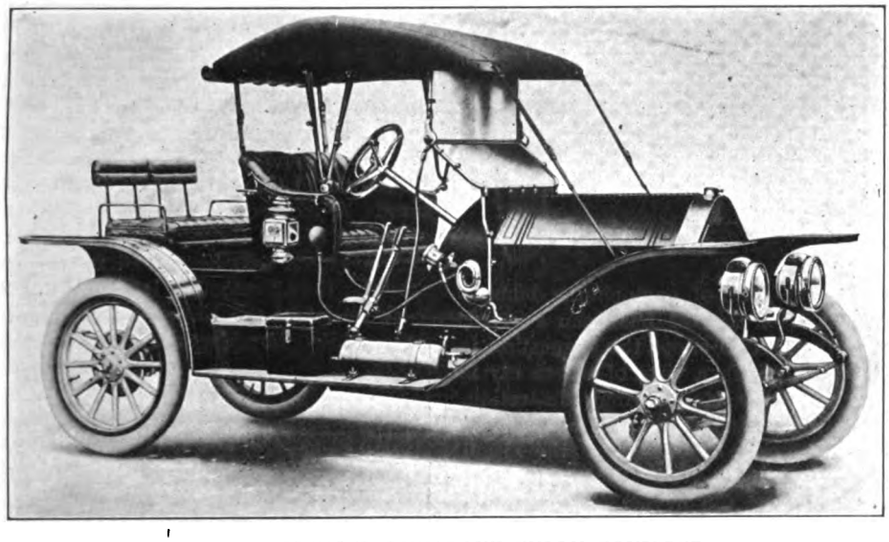
Of considerable interest during the present speculative wave, the little booklet entitled "The Commercial Geography of Rubber," compiled by Charles B. Whittelsey, superintendent of the Hartford Rubber Works Co., has just appeared. Chiefly intended for circulation among the trade, the little book contains a great amount of valuable information regarding the origin, nature and manufacturing processes of rubber, set down in easily comprehensible, non-technical language.

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## THREE MODELS OF THE WESTCOTT

**Closed Front for Seven Passenger Type—Open Front Retained for the Five Passenger Offering.**

While a large number of automobile manufacturers are rising to the support of the high sided body, which, perhaps, may be most correctly described by the appellation "closed front," there are a few who go upon the wise assumption that just because the closed front is the very latest development in the body line it does not follow that all intending purchasers are certain to wish to own a vehicle of that type. Of the group of makers revealing this very commendable discretion the Westcott Motor Car Co., Indianapolis, Ind., may be mentioned. The Westcott "45-50" is one of the newer cars, and though its construction by no means is so radical as to excite criticism, there are a number of points about it which are well worth considering.



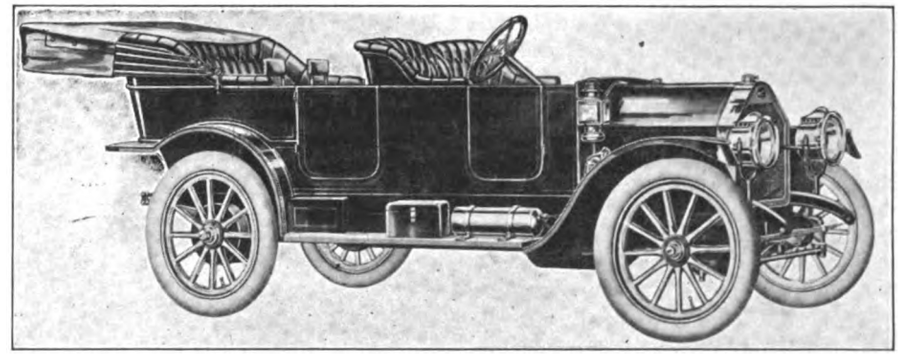
FOUR PASSENGER RUNABOUT FULLY EQUIPPED

As already indicated the body designs adopted offer an option in the matter of style. As the accompanying illustrations show, practically the same form of touring equipment is built in both closed and open front construction. The closed front style, however, is made to accommodate seven passengers, while the more nearly standard body is built to carry four passengers in addition to the driver. There is besides a natty four passenger runabout, with folding artillery seat in the rear, a deep concave dash, folding wind shield set well back over the dash, and top covering the forward seat.

The standard equipment for these three styles of car includes two oil dash lamps and the tail light, a pair of gas headlights, with Prest-O-Lite gas tank, robe rail and foot rest, and a complete set of appliances and tools including jack, pump and tire repair kit.

The descriptive designation of the car is derived from the full rating of the motor, which is of well known and approved form, having cylinders of 4¾ by 5 inch dimensions. It is water cooled, has double ignition with Remy magneto, combination splash and forced lubrication and a standard form of carburetter. The transmission system includes the use of a plain, leather faced cone clutch, three speed, selective type sliding gearset and shaft drive. The change gear and rear axle journals are mounted on Timken roller bearings. The rear axle is of the full floating type.

Semi-elliptic suspension is employed, the front and rear members being 40 and 56 inches in length, respectively. The service brakes are of the contracting type and operate on drums on the rear wheels. The emergency brakes are of the expanding pattern. The wheel base is 120 inches, the tires are 36 by 4 inches in size and of the "Q. D." pattern, the clearance is 11 inches, and the nominal weight 3,000 pounds.

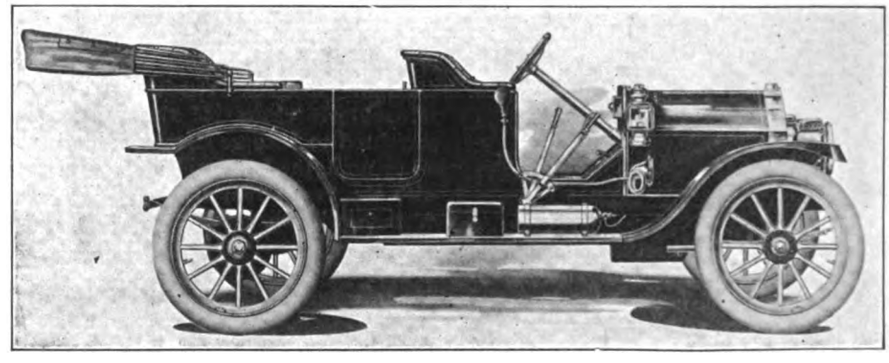


WESTCOTT 45-50 CLOSED FRONT TOURING CAR

The general arrangements of the mechanism and of the control system are standard. In connection with the seven passenger torpedo pattern, however, it is well to notice one point, namely the arrangement of the side levers. Instead of being carried outside the body, the levers are placed inside. By this means they are brought within easy reach of the operator, while the body is kept smooth outside.

**Waverley Changes and Price Advances.**

Advances in prices on September 1st are scheduled for Waverley electrics, made by the Waverley Company, of Indianapolis, Ind., and all models are to have 20 per cent. larger battery capacity, permitting from 90 to 100 miles on one charge. Provision also is to be made for the fitting of Edison batteries when desired. The four passenger coupe will be advanced in price from $2,400 to $2,500; the two passenger from $2,150 to $2,250; the Victoria phaeton from $1,900 to $2,000, and the roadster from $1,800 to $1,850.



STANDARD TOURING CAR FOR FOUR PASSENGERS

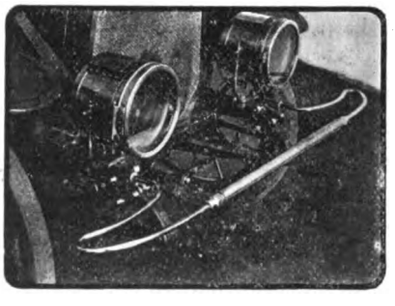
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### Paris Salon Revival for December.

Taking a tip from the American automobile manufacturers, the French makers this year are to hold the Paris Automobile Salon themselves, and are to have a uniform style of decoration for the exhibits, thus keeping down expenses and dividing the show profits among themselves. The Salon was omitted last year, by agreement among the makers, but is revived this year for December 3d to 18th in the Grand Palace. In the past the Salon has been under the control of the Automobile Club of France, which organized a show committee to which some of the automobile manufacturers were admitted. The latter, however, did not have any decided voice in the management or any share in the profits. This time the show will be managed by a joint committee of the four most important trade associations in France, with the Automobile Club admitted to only an honorary position on the committee. Although the general decorative effects will be on as grand a scale as heretofore, the stands will be placed at the disposition of the exhibitors complete with uniform decorations, fittings and electric lights.

### Steel Loop Springs for a Bumper.

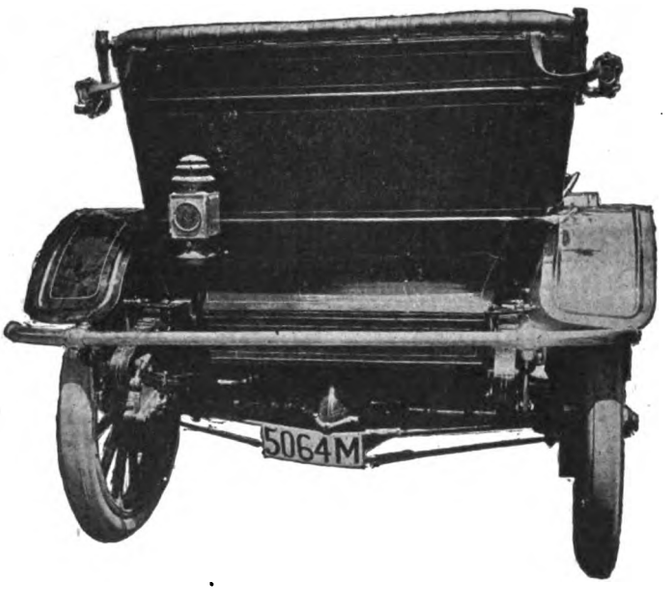
Giving a great degree of resilient flexibility and contact yield, but amply strong and stout against serious shock, a new front bumper has been brought out by the Accessories Mfg. Co., 1926 Broadway, New



York, under the name of the Safety Auto Bumper. Spring steel, suitably looped to give the spring yield, is used for the construction of the two ends, as shown in the accompanying illustration, while the center piece is made of steel pipe covered with brass tubing instead of merely being plated. The center is capable of telescopic adjustment so that the bumper may be made the proper width for any car. No holes need be drilled in the springs or car frame for attaching the bumper, as efficient screw clamps are provided. The device, which sells for $15, is attached on a line with the top of the frame, in order that it may protect the lamps and fenders.

### Providing Against Rear Collisions.

Not all collisions or traffic bumps in which motor cars figure are of the "head-on" variety, and because of the possibilities of rear-end damage that threaten the




machine, the idea of equipping a bumper to the back of the car has been evolved. Among the first to adopt the suggestion is a Detroit motorist, a view of whose car is shown in the accompanying illustration, disclosing the application of a "Swivel-action" bumper supplied by the Emil Grossman Co., of New York City, the manufacturer of the device. The bumper is attached to the rear spring hangers, and provides protection for the rear axle, gasolene tank, tail lamp, fenders and the body work.

### Clean Ball Valves for Carburetters.

Carburetters of the type in which the extra air supply is admitted through a ring of holes closed by a series of round balls of different weights, require to be kept scrupulously clean. If the ball seats are permitted to become clogged with dust and oil or mud, the balls will not seat properly, with the result that the regulation of the mixture will be upset in a most puzzling way.

### Band Brakes for Horse-Drawn Fire Engine.

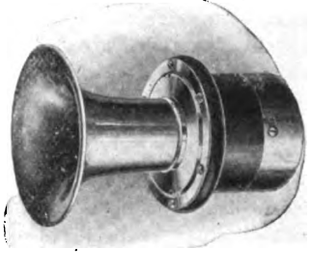
Recognizing the power and efficiency of a band brake when compared with the old style shoe type, the fire department of Bridgeport, Conn., has installed Duplex band brakes on all its fire engines. The use of band brakes on heavy horse-drawn vehicles opens a new field to manufacturers of effective brakes.

### Chicago Show Plans are Perfected.

Drawing for space in the tenth annual National Automobile Show at Chicago, Ill., for the first week and for the second week will be entirely distinct, according to an announcement by the National Association of Automobile Manufacturers, and no concern will be permitted to draw space and occupy it for two weeks, the first with pleasure cars and the second with commercials. Accessory exhibitors, however, will be permitted to contract for one week or both weeks, as they may prefer. The show, as previously announced, will occupy two weeks, commencing January 28th and ending February 11th. The first week's show will open at 2 p. m. on Saturday, January 28th, and will close at 10:30 p. m. Saturday, February 4th. The exhibits will consist exclusively of pleasure vehicles and accessories. The second section will open at 8 p. m. on Monday, February 6th, and will close at 10:30 p. m. Saturday, February 11th. Commercial vehicles will be given first choice; pleasure vehicles which have not been exhibited the first week, second choice; and other pleasure vehicles, third choice in the automobile section. More space than ever before has been allotted to the Motor and Accessory Manufacturers, which association will make its own allotment. A motorcycle section also is to be a feature of the show. Application blanks and diagrams will be mailed to the trade not later than September 1st, from the New York offices of the National Association of Automobile Manufacturers, 7 East 42d street.

### Electric Monoplex in a New Model.

Slightly smaller and correspondingly less in price than the regular electric Monoplex horn, a new model Monoplex, styled the type "M," has been produced by the Atwater Kent Mfg. Co., of Philadelphia. Pa.



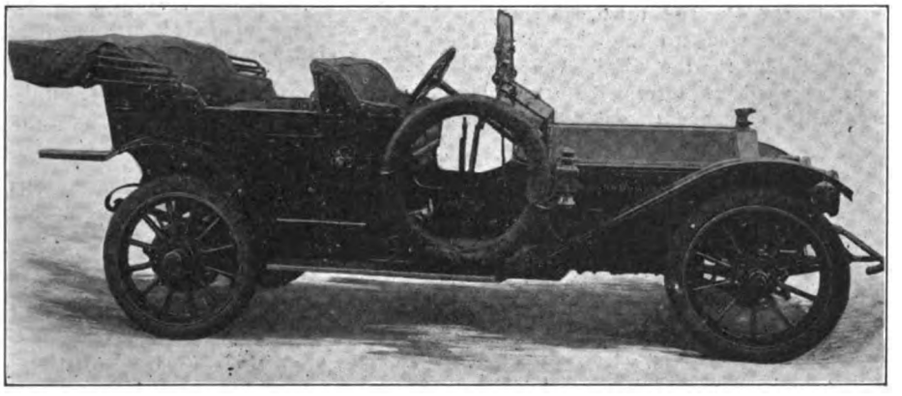
The new horn, which is shown in the accompanying ilustration, is designed to combine a powerful tone with substantial construction and pleasing appearance. It has a 4-inch vanadium steel diaphragm and a 4-inch projector. The operating mechanism otherwise is identical with the larger size, having the improved vibrating system which now is a feature of the latter and which is louder and heavier in tone than the one previously used. The horn for the type "M" is of seamless brass.

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## CLOSED FRONT MODEL IS ADDED

### Glide Line Discloses Six Styles Including Two New Types—Five Passenger Car is Offered.

Following a season of several years duration during which it has not been found necessary to introduce any really material changes in the construction of the chassis it has been decided to continue the Glide car practically in the same form. This announcement is made by the Bartholomew Co., Peoria, Ill., concurrently with the disclosure of two new styles and the statement of a reduced price schedule. The line as produced henceforth will, therefore, consist of no less than six models, all of which are built upon the standard gear with slight modifications according to the demands of the individual vehicle.



THE NEW GLIDE FIVE PASSENGER ROADSTER

The additions to the line which are innovations at this time, include a striking member of the closed front type, known as the torpedo model. As the accompanying illustration of the car shows, it is distinguished by a characteristic form of concave dash, which forms a close housing over the fore part of the foot board, its outline being substantially parallel to the angle of the steering post. The side rail is nearly on a level with the top of the bonnet, thus giving the machine that low and rangy appearance which is so much sought by designers at the present time, while at the same time the seat backs are sufficiently high to afford measurable comfort to the occupants.

The five passenger touring car, which is the other addition announced at this time, is the first machine of that capacity which the Bartholomew company has produced. In general lines, it follows the style of previous models. But it is more nearly an enlargement of the roadster than a condensation of the touring car, in general character, although in most respects it is an intermediate type between the two. It is long and low, and, as illustrated, with full equipment, it presents a very practical appearance. The steering column has been arranged at a still more rakish angle in conformity with the prevailing custom, which gives to the car a decided "roadster" appearance.

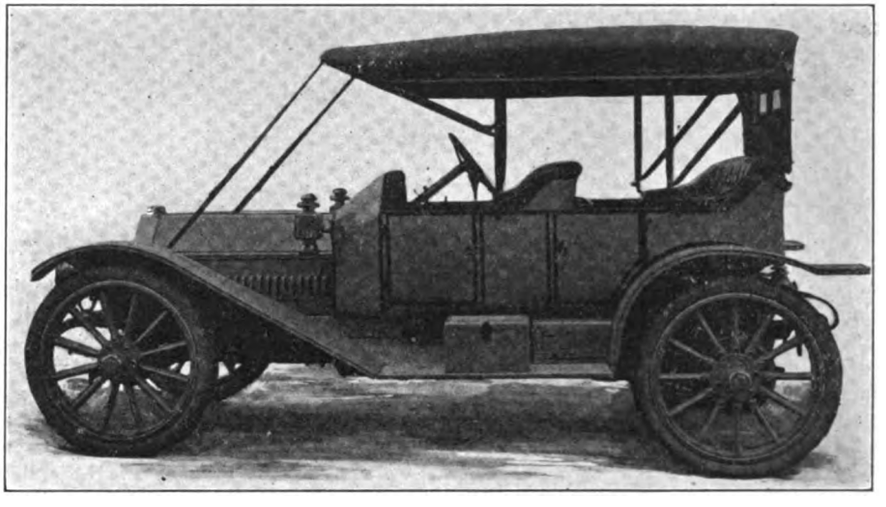
The remainder of the line includes the seven passenger touring, roadster, two and four passenger "scout" models and the delivery car, which is a special adaptation of the standard gear to commercial needs. An important point in this connection is the fact that with the introduction of the two new models the car will be sold for $2,000, instead of $2,500, as formerly. The only exception is in the case of the torpedo model, the price of which has been fixed at $2,150.

The equipment remains as heretofore with the exception that, instead of using the Eisemann magneto exclusively, an option now is offered between that system and the Bosch. In addition to this, the list price asked for such portions of the extra equipment as searchlights, folding wind shields and extra tonneau seats have been lowered slightly. The standard stock equipment includes in addition to the magneto robe and foot rails, dash and tail oil lamps, horn, pump, jack and special tool kit.

The mechanism of the Glide chassis is particularly sturdy and is noteworthy for several original features. The motor is of the standard, four cylinder vertical type, water cooled and with bore and stroke of 4¾ by 5 inches, and is rated at 45 horsepower. Self-contained lubricating system, double ignition, and other modern specifications are embodied in it.

The master clutch is of the multiple disc type, running in oil. The change gear is an early Glide development, being of the axle mounted pattern, affording three forward speeds, very rigidly constructed and driving the differential shaft through direct bevel connection, the active member of the axle group being mounted on five Timken roller bearings.

The brakes are of unusually large size, 16 by 3 inches, and are faced with special fabric lining. The tires are 36 by 4 inches on the five passenger touring and roadster models, 36 by 4½ inches on the seven passenger touring and torpedo models, and 40 by 4 inches on the "Scout." The wheel base is 120 inches on the seven and five passenger touring and the torpedo models, and 122 inches on the "Scout" and the roadster.



THE NEW GLIDE TORPEDO EQUIPPED WITH TOP

### Light on Electric Lighting Problems.

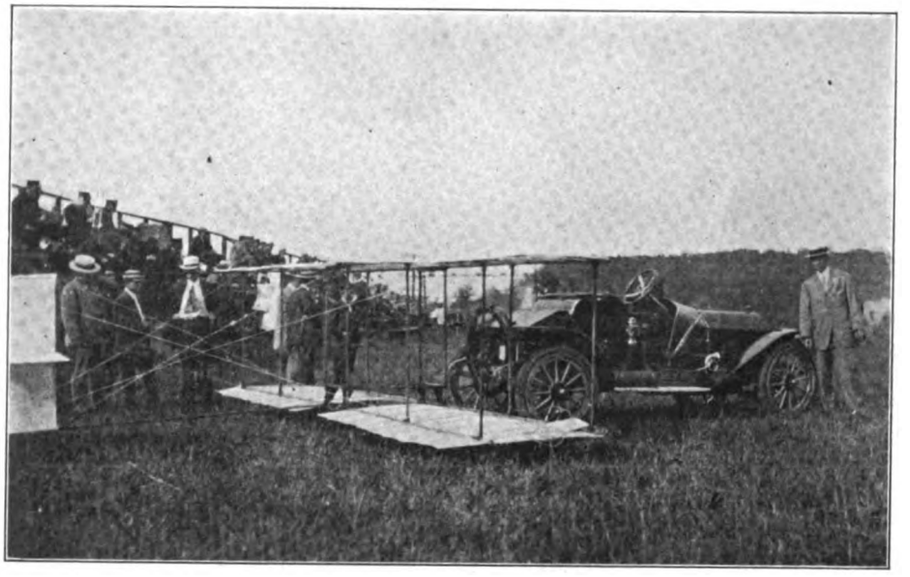
For the benefit of automobile manufacturers and motorists interested in the subject of electric lighting for motor cars or intending to adopt electrical equipments, the engineering department of the National Electric Lamp Association, Cleveland, Ohio, has prepared a special bulletin dealing with the subject in a most practical and thorough manner. Besides listing the various types and styles of lamps produced especially for automobile use, generating and wiring systems are discussed at length and most suggestively. In addition there are photometric tables and light distribution charts calculated to afford the technically inclined considerable assistance in contriving or adapting lighting arrangements for any specific purpose.

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## FRIENDLY PULL FOR AEROPLANE

### Motor Car Makes Ascent Possible for Flyer—Prevents Disappointment of Rubber Men at Boston.

Some aeroplanes can fly for miles and miles, and can even rise from the ground under their own power and without a special starting rail or similar aid, but not all seem to have progressed so far, for the bird of the air shown in the accompanying illustration has troubles of his own. It was "featured" at the recent 12th annual outing of the Rubber Club of America, at Boston, Mass. Every time it was attempted to make the machine rise, it balked until a motor car came to its aid and pulled it along the ground, giving it sufficient speed to rise from the earth. The car, which was a Cole "30," fulfilled its role as aero-aeroplane assistant to the satisfaction of all concerned, and whenever the Rubber Club of America gives another outing with aeronautical trimming, it is very likely that one of these little machines will be at hand to lend a kindly helping "pull" to the giant would-be birds.



COLE "30" AS AN AEROPLANE STARTER

### Where Uncle Sam Breaks Speed Law

In order to learn for himself whether or not the schedule for mail collecting automobiles was such that it was necessary to violate the speed laws, Judge James A. Collins, of the Indianapolis Police Court, trailed one of the mail wagons one evening last week. He followed the car for 21 miles in another automobile, the speed most of the time being 35 miles an hour, and the machine finishing two minutes late. Judge Collins made the trip with an official of the company which furnishes the mail cars, and which charges it is not responsible for violating the speed law because of the fast schedule arranged by the Government.

### Hobo "De Luxe" Makes His Appearance.

"Beating" freight trains is no longer the goal of the hobo; nowadays he jumps touring cars and rides on the trunk rack instead of on flat cars, or in box cars. One of them has made such a success of this new scheme that he managed to travel from Oshkosh, Wis., to Indianapolis, Ind., without knowledge or consent of the owner of the car. Arriving in the Hoosier town, he jumped from the rack, went to the driver's seat and thanked him for the "lift." Whenever the car stopped at intermediate points, Weary Willie managed to get off without being seen, and to jump on again before the car had gathered too much headway

### Motor Cars a Foe to Silk Hats.

Although it has almost grown to be a kind of sport to blame the automobile for everything and anything under the sun, from measles to hard times, it remained for a certain hat manufacturer, apropos of bankruptcy proceedings, to explain that the automobile had driven him to the wall—by diminishing the use of the tall silk hat. Barely one-tenth as many silk hats are sold at present in the United States as were sold 10 years ago, it is claimed, and, of course, the automobile has to take the blame.

### Columbus Wants Postoffice Cars.

Believing that three automobile mail collecting wagons will accomplish the work of the nine horse-drawn wagons now in use, the Columbus (Ohio) post office authorities have installed three motor cars. Should the work done by these cars be satisfactory, the fire, police, park and other departments will order cars for their use.

## TRANSPORTS "JUICE" BY MOTOR

### Ingenious Ice Cream Maker Fools a Power Company—Utilizes Current from His Electric Automobiles.

That electric wires and a connection with a power house are not absolutely necessary in order to drive the electric machinery of a factory was proven by J. George Smith, a candy and ice cream manufacturer of St. Paul, Minn. To the surprise and disgust of the manager of the electric power company which used to supply him with "juice," he pressed his Waverley electrics into service when he needed power, and the attempt of the power company to coerce him into paying a higher price for the electric current therefore was abortive.

It all happened because of a difference of opinion between the Northern Heating & Electric Co. and Smith over the price of the "fluid." Smith thought the price demaned too high, when the company raised his rate 25 per cent., and cut out their service. Then the company cut him out. But Smith had five electric delivery wagons and promptly pressed them into service. While two of the cars delivered the necessary power to the ice cream machines inside, three were sent to the charging station of an electric power house. When these returned two were again used in running the factory while the others were charged, thus affording a good illustration of the mobility of electric vehicle equipment.

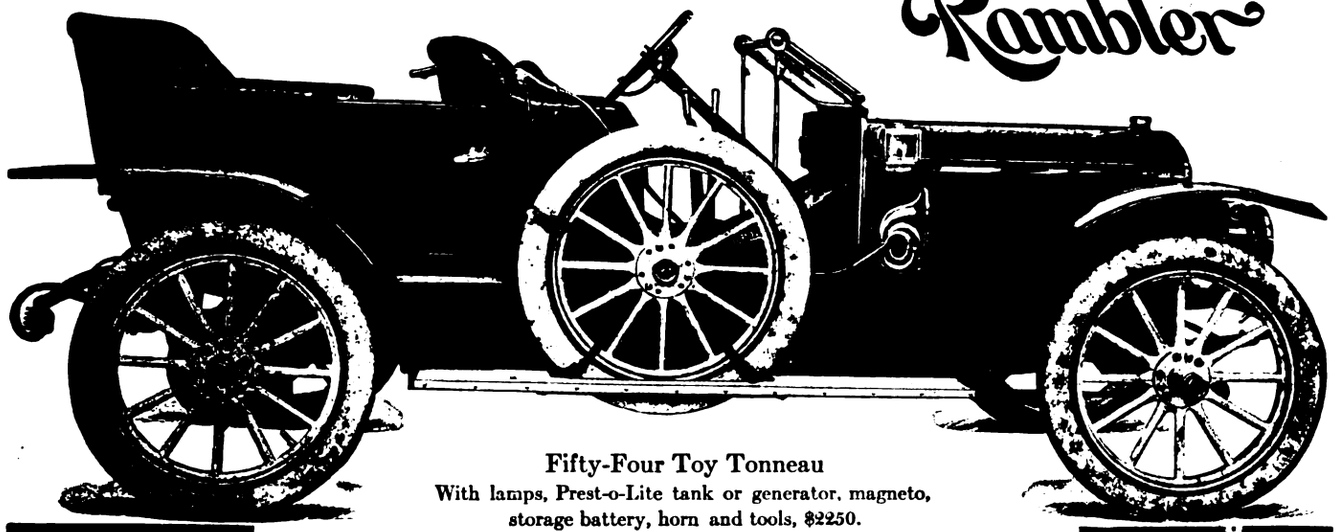
Mr. Smith declared he got the idea for his present exploit over a decade ago. He had electric bulbs in his residence, but there were no wire connections with a power company. Thereupon he took his electric car home, connected the house mains with his battery and ever since has been able to enjoy the benefits of electric lights without bothering to subscribe for local service. It was by a similar method that he managed to circumvent the electric company when the "difference" arose.

### Turned the Trick with His Toes.

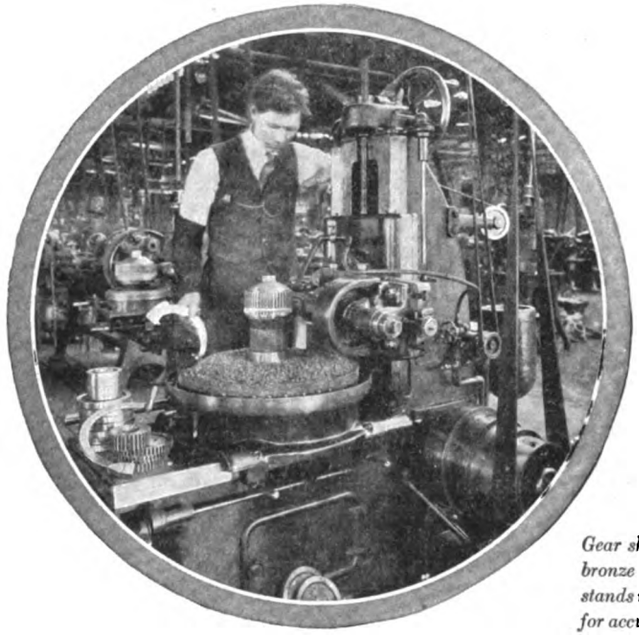
That a good deal of tricky work was done on the last Glidden tour, despite the close observation by the proper officials, is an open secret among people who were in the thick of it, and who know what was going on. One of the drivers, in particular, is said to have turned as slick a trick as can be imagined. Adjusting the oiling device during the day's run was a strict violation of the rules, but this driver "got away with it," because the "observer" was not sufficiently observing. "John"—as the driver for convenience may be called—is related to have slipped off his shoes and adjusted the oiling device with his toes, while telling the official a funny story.

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# Rambler



**Fifty-Four Toy Tonneau**
With lamps, Prest-o-Lite tank or generator, magneto, storage battery, horn and tools, $2250.



*Gear shaper cutting Rambler bronze gear. The workman stands ready to gauge the gear for accuracy when completed.*

Silence, smooth running qualities and perfect balance have been attained through the careful grinding of Rambler parts and their accurate fitting. Reciprocating parts, such as pistons, connecting rods, crank shafts and fly wheels are weighed and balanced to eliminate vibration. These points alone illustrate the superiority of the Rambler engine.

## The Thomas B. Jeffery Company

**Main** Office and Factory, Kenosha, Wisconsin
**Branches:** Boston, Chicago, Milwaukee, Cleveland, San Francisco

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## MOTOR MAIL LINE FOR BRITAIN

**Regular Service to be Established Between London and Birmingham—Vehicles to Travel at Night.**

After five years of varied experience with automobile equipment in mail service, the British postal authorities are about to establish a regular motor mail line between London and Birmingham. This is announced in a report by Consul-General Albert Halstead, of the steel city, which deals with the use of automobiles for the carriage of mail in the vicinity of Birmingham and between Birmingham and London.

"The use of motor wagons for carrying mail was instituted by the Birmingham post office some five years ago," says the consul, "but it was not altogether successful, because at that time the manufacture of automobile engines had not reached its present state of perfection, and delays, due to the breaking down of machinery, seriously interfered with the service. Now that automobile engines have reached a condition of efficiency which makes them reliable, the post office has increased the service. For some little time there have been services of mail between this city and adjacent towns. By these automobile wagons letters are now carried with great regularity. At first such services were only used for the parcels post. These motor wagons are so timed as to reach Birmingham at midnight and then are returned with letters and parcels.

"The post office is now instituting a motor service connecting London and Birmingham. The wagons to be used will carry a maximum load of 5,040 pounds and travel at a speed of 12 miles an hour, one wagon running nightly in each direction. The wagon leaving London will start at 7:15 in the evening and be due in Birmingham at 8:10 the next morning, and that from Birmingham to London will leave at 8:25 p. m. and be due at the general post office in London at 7:20 a. m. The distance between London and Birmingham is 113 miles. These motor wagons will connect with other motor wagons running from intermediate towns, so as to cover greater territory.

"It is believed that this service will materially improve the postal service; it will naturally reduce the amount of carriage by rail, and will probably be more economical."

### One Year's Accidents in England.

Statistics of street accidents in England for 1909 show a remarkable increase over the previous year, the increase being almost as great for horses as for motor vehicles. In 1908 the fatal accidents were evenly shared between the two classes, but last year the increase of motor traffic is reflected in the casualty figures.

In London motor cars and cycles killed 86 persons in 1909, as compared with 49 in 1908; motor omnibuses killed 59, as compared with 42; horse omnibuses killed 9, as against 7. As regards tramways, those employing mechanical traction killed 3, as against 0. Other horse vehicles caused 120 deaths, compared with 101.

Thus the total of fatal accidents amounted to 303, as against 216, of which, if tramways are omitted, motor driven vehicles are responsible for 145 and horse drawn for 129, as compared with 91 and 108 respectively.

The figures for all accidents are in 1909 for motor driven, 4,831; for horse driven, 6,337, as against 3,273 and 4,828.

### Would Commandeer Cars in Wartime.

Commandeering in time of war of all private automobiles holding four persons or more, for the transportation of troops, is proposed by Major-General Frederick D. Grant, in his annual report to the War Department, issued this week. He recommends a national law authorizing the Federal government to take this step should occasion require, and also advises the construction of large numbers of motor trucks for the transportation of army supplies in the field. He declares the use of such trucks would save both time and money. The commandeering of touring cars which he suggests carries with it provisions for the reimbursement of the owners on an equitable basis. With the improvement of roads, General Grant foresees the time when troops will be transported long distances in motor cars, and the appropriation of all privately owned machines, he believes, would give the army efficient transportation on short notice.

### Chauffeur Goes on a Long "Joy Ride."

After purchasing 42 gallons of gasolene, four inner tubes, four tire shoes, several gallons of oil and ordering all of this charged up to his employer, Richard Lopez, a chauffeur, of Concord, Mass., has disappeared with the limousine owned by George L. Shaw, an architect. When last seen, the chauffeur was driving a party of three in the direction of Waltham, Mass. The car is numbered 15,168 and bears the Massachusetts license number 5,924. Lopez is a Mexican, 25 years old and 5 feet 10 inches in height.

### Consul Sees an Opening in Germany.

According to the American Consul at Plauen, the field in his part of Germany "is well worth the attention of American automobile manufacturers." Motor cars only recently attained popularity there, and as the purchase of other American products has increased each year, he believes the sale of medium priced automobiles also is easily possible.

## MALAGA WANTS ONLY LIGHT CARS

**Narrow Streets of the Spanish City Make Big Machines Impractical—Chance for American Machines.**

Despite the present political and religious upheaval in Spain, which threatens to paralyze all business activities in the peninsula, there is, in the opinion of Consul Edward J. Norton, a promising market for the cheaper class of American cars in and around Malaga, where the consul is stationed. According to his report to the State Department, there are in Malaga and the surrounding district only 32 gasolene automobiles, 26 of which are French, four German, and two British. "The narrow streets of Malaga and the road conditions in that district," says the consul, "are responsible for the small number of motor cars now in use, but there are comparatively few wealthy people in the city, and sales opportunities are consequently limited. Gasolene sells at about 60 cents per gallon, and the cost of operating a car is, therefore, a heavy item of expense.

"No efforts were made to push sales in this district until February last, when an English mechanic established a garage and repair shop in Malaga, acting also as agent for a British motor-car manufacturer. It is thought that a few low-priced American cars might be introduced, and the owner of the garage referred to (name and address on file at the Bureau of Manufactures) is ready to receive catalogs and price lists from manufacturers of runabouts. Quotations should include prices of cars delivered, c. and f. Malaga.

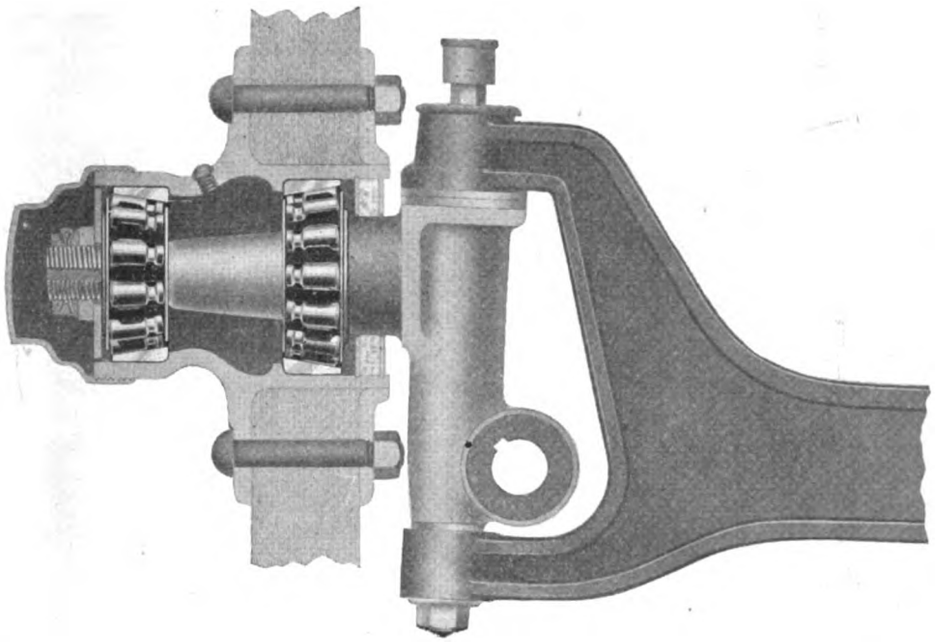
"American lubricants are used here almost exclusively. Tires, pumps, and all other accessories come from England."

### Viennese Cabmen Oppose Taximeters.

Commercial Agent Henry Studniczka, writing from Vienna, states that the passage of an ordinance by the municipal council compelling the use of taximeters on all two-horse cabs, may have a decided influence on the market for automobiles in that city. He says:

"The cabmen opposed the ordinance on the ground that the use of taximeters would prove ruinous to their business, inasmuch as they would be unable to maintain a high-grade vehicle and fine horses under the charges provided in the measure. As the popularity of these cabs has been largely responsible for the slow introduction of the public automobile in Vienna, it is believed that the ordinance will tend to increase the use of the latter. In fact, if the predictions of the cabmen and others are well founded, the introduction of the taximeter is a death blow to the two-horse cab in Vienna.

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# Timken Roller Bearings

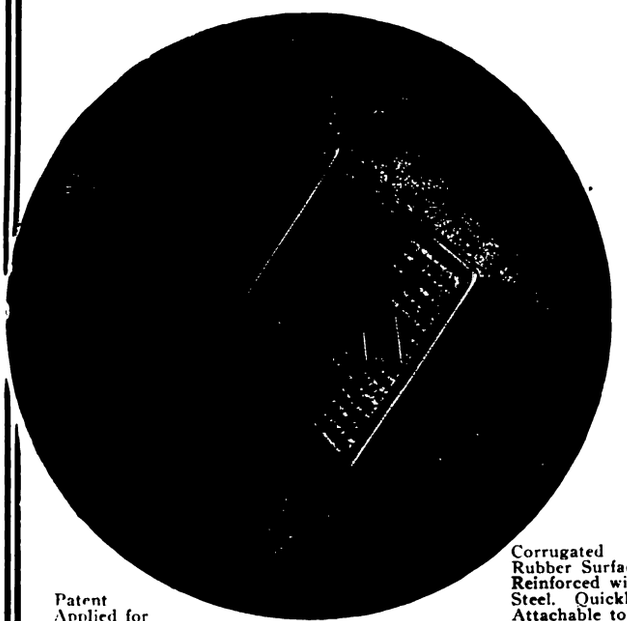
¶ The above cut shows Timken Short Series Roller Bearings installed in a Front Hub. It will be noticed that on account of the tapered construction of our bearings they are peculiarly adapted to this particular class of wheel work, since they are capable of carrying, not only the dead weight of the car, but also capable of taking care of the great end thrust which is present in all automobile wheel service. This is one of the important and exclusive features of the Timken Roller Bearing, namely, that it can stand as much end thrust as radial load.

¶ All bearings wear in time, and as a consequence, continuous end thrust on wheel application causes such wear that in a given time, or a certain number of miles of service, it is necessary to replace those bearings of the annular and other types in which the wear cannot be taken up.

THE TIMKEN ROLLER BEARING CO.
Canton, Ohio

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# Your Foot Can't Slip On An APCO Pedal Grip



Patent Applied for

Corrugated Rubber Surface, Reinforced with Steel. Quickly Attachable to Any Car

**On July 27-28-29 an actual count of 1,000 private cars standing in the public garages of New York City showed that 427 of them—NEARLY ONE HALF—had pieces of rubber, rubber hose, rags or some other home-made anti-slipping contrivance on their pedals. This test proves two things:**

**1. The NEED for pedal grips.**
**2. The fact that drivers and owners REALIZE this need.**

Metal pedals—with their hard, icy-smooth, slippery surfaces—are always *uncomfortable* and often *unsafe*.

You know this if you've ever held your clutch out all the way down some long grade.

You know this if you've ever driven slowly on high gear through traffic.

You know this if, when you wanted your brakes—*surely* and in a *hurry*—your foot has slipped, or *felt* like slipping and robbed your muscles of half their power.

Such a slip may easily mean a disaster. Such a slip often *does* mean a disaster. Hundreds of costly little smash-ups and not a few serious accidents are caused every year by the *unsure, insecure* footing afforded by metal pedals.

All this annoyance, discomfort and danger may now be simply avoided by using **APCO Pedal Grips.**

Quickly attachable to the pedals of any car, these Pedal Grips provide a *large, solid, steadfast* pressure-surface for the foot.

The corrugated rubber *clings*—the foot *cannot* slip.

The surface is a *cushion*—rough—adhesive—substantial—secure. The foot closes down on it with a feeling that it is "THERE!"

And the driver feels *free* to throw upon the Pedal *all* of his muscle—*all* of his weight.

APCO Pedal Grips give a *feeling* of security, for they give security *itself*.

**Less Vibration**

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## RECENT PATENTS.

963,240. Steering Wheel. Arthur G. McPherson, Highland Park, Ill. Filed Nov. 18, 1907. Serial No. 402,665.

1. The combination with a tubular steering shaft, of a steering wheel rigidly secured thereto, said wheel being provided with fluid chambers in its rim and hub portions and with a passage connecting said chambers, a smaller tubular shaft mounted within and forming an annular space in said steering shaft, said smaller tubular shaft discharging into said hub fluid chamber, and a tubular connection between said annular space and the rim fluid chamber.

963,304. Vehicle Wheel. Walter W. Macfarren, Pittsburg, Pa., assignor to Wm. H. Donner, Pittsburg, Pa. Filed March 9, 1907. Serial No. 361,624.

1. A vehicle wheel for road use, having a rim, a solid rubber tire mounted thereon extending to the edge of the rim, and a metallic tire with a cylindrical outer surface mounted on said rim outside of the said rubber tire, the diameter of the said metallic tire being substantially less than the diameter of said rubber tire.

963,412. Magneto Generator. Charles W. Wilson, Edgewood, Ill. Filed July 26, 1909. Serial No. 509,498.

1. In a magneto generator, the combination of a U-shaped field magnet formed of a single piece of material and having resilient limbs, pole pieces applied to the limb of the field magnet, an armature mounted between the pole pieces, and an adjustable member between the pole pieces for spreading them apart or permitting them to come together.

963,612. Accessory for Internal Combustion Engines. Eugene D. Means, Towanda, Pa. Filed Feb. 16, 1910. Serial No. 544,208.

1. An accessory for internal combustion engines, comprising a block of insulating material, two metal plates secured thereto and electrically separated thereby, one of said plates adapted for attachment to a spark plug, a binding post carried by the other plate, and a switch lever pivotally connected to one of said plates and adapted to be electrically connected with and disconnected from the other plate for closing and opening the circuit of the spark plug.

963,615. Sled. Fred A. Miller, Cadyville, N. Y. Filed June 18, 1909. Serial No. 502,949.

A sleigh of the class described comprising a body, springs depending from the latter, front and rear runners fixed to the springs, each runner formed of a skeleton frame structure, vertical housings fixed to the rear runners and containing slots in their inner walls, a shaft having its ends passed through the slots and freely slidable therein, split boxings receiving the ends of the shaft and slidable in the housings, expansion springs having their bearings upon the tops of the housings and the boxings and being adapted to maintain in the latter in the lower portions of the housings, grooved squared portions formed on the shaft, propeller wheels fitted on the squared portions of the shaft, and wedge-shaped members engaging in the grooves in the squared portions of the shaft to detachably lock and hold fast the wheels on the latter.

963,711. Electric Sparking Device. Joseph Arthur Jeffery and Benjamin Alfred Jeffery, Newark, N. J., assignors to Jeffery-De Witt Company, Newark, N. J., a Corporation of New Jersey. Original application filed Aug. 15, 1906. Serial No. 330,620. Divided and this application filed Feb. 4, 1908. Serial No. 414,277.

1. An electric sparking device comprising an insulating block provided with a recess in one end, and a conductor embedded in said insulating block and terminating at the inner end of said recess, the diameter of said recess being so restricted that accumulations of short circuiting media therein would be insufficient in quantity to carry the current without disintegration of such media.

963,804. Carburetter. John Peterson, Chicago, Ill., assignor to Dibelka & Breska,

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Chicago, Ill., a Copartnership. Filed June 30,1909. Serial No. 505,174.

1. In a carburetter, the combination of a mixing chamber, means for admitting fuel thereto, regulatable means for admitting air to said mixing chamber, a suction operation valve governing the outlet from said mixing chamber, and connections between said valve and said air admission means whereby actuation of said valves automatically actuates said air admission means, substantially as described.

963,822. Muffler for Explosive Engines. De Wane B. Smith, Deerfield, N. Y. Filed Dec. 13, 1909. Serial No. 532,772.

1. A muffler consisting of a cylinder and heads having inlet and outlet openings respectively and subdivided by one or more main transverse centrally perforated partitions into two or more sections, each section composed of three chambers formed by placing in said sections a fully perforated cylinder of relatively small diameter having a middle imperforate partition, arranged longitudinally of and substantially axially in the said sections and registering at their ends with the inlet and outlet openings and with the said openings in the one or more main partitions, substantially as set forth.

963,839. Transmission Gearing. Charles A. Ward, Pittsburg, Pa. Filed Feb. 13, 1909. Serial No. 477,691.

1. The combination with a shaft and a bearing therefor, of a wheel freely mounted on the shaft and having an inner annular periphery, a companion head rotatably mounted on the bearing and engaging the periphery of said wheel, a hub secured to the shaft, oppositely arranged friction shoes, means connecting the shoes with the companion head, and pairs of pitmen connecting the shoes with the hub at opposite sides thereof, one pitman of each pair being operative to press the shoe into engagement with the wheel when the speed of the hub tends to exceed the speed of the wheel, substantially as set forth.

963,840. Grease Cartridge or Container. Richard V. Whitaker, Jr., New Brunswick, N. J. Filed Nov. 29, 1909. Serial No. 530,338.

As a new article of manufacture a grease cartridge or container comprising a cylindrical body portion having an enlarged end provided with an interior screw thread and an outwardly projecting resilient flange at the extremity of said enlarged end, a cap secured on the opposite end of the body portion and formed with a threaded neck of less diameter than said body and interiorly threaded, said neck having a resilient outwardly projecting terminal lip, and members adapted to be screwed into said threaded portions of the cartridge provided with flanges arranged to engage the resilient lips and form hermetic joints.

963,870. Vehicle Spring. Dorr R. Close, Chicago, Ill. Filed June 25, 1909. Serial No. 504,280.

1. A vehicle spring structure comprising in combination two parti-elliptical springs, a coiled spring interposed between vertically substantially alining portions of said springs, a scroll extension of one of said leaf springs extending beyond the end of the other, and means for checking the recoil of the said second member comprising a substantially laterally rigid connection between the scroll portion and the end of the opposite leaf spring to which the coiled spring is connected.

963,874. Driving Gear for Motor Cars. Paul Daimler, Unterturkheim, Germany. Filed Oct. 25, 1906. Serial No. 340,550.

In a motor driven vehicle, driving shafts arranged in a straight line, a paraboloidal hyperboloidically toothed pinion secured on each of the said shafts, a driving axle, wheels mounted thereon at a slant and a paraboloidal hyperboloidically toothed internal wheel on each of the said driving wheels, in gear with the said pinions, all combined substantially as and for the purpose set forth.

964,002. Motor Sleigh. Guy Dokter, Andover, S. D. Filed Feb. 9, 1910. Serial No. 542,994.

1. The combination of a sleigh having a body supported by spaced runners, means on said sleigh body to receive the axles of a motor vehicle and support the same, a frame arranged in advance of the sleigh and having its rear end supported by the latter, a reach at the front end of the frame, a front axle pivoted to said reach, supporting and steering wheels on said axle, a steering mechanism for said wheels mounted on the frame and having an actuating element within reach of the operator of the motor vehicle, a propeller in said frame, means for raising and lowering said propeller, the last mentioned means being under the control of the motor vehicle, and gearing for driving said propeller arranged in the frame and in the body portion of the sleigh and adapted to be driven from the power mechanism of the motor vehicle.

964,049. Pneumatic Tire. Milton T. J. Ochs, Allentown, Pa. Filed May 4, 1909. Serial No. 493,837.

1. The combination of a wheel felly, a rim extending around the same and formed with a continuous channel, an air tube arranged in the channel and having ports in its outer wall, a plurality of tire sections disposed around the tube and bearing against the said ported wall, each tire section being open at its base, a ported clamping plate in each tire section having separate portions arranged to engage the base and outer wall of the tube, the ports of the clamping plates being arranged to register with the ports of the air tube, and fasteners for securing the tire sections and clamping plates to the air tube and the aid tube within the rim on the felly.


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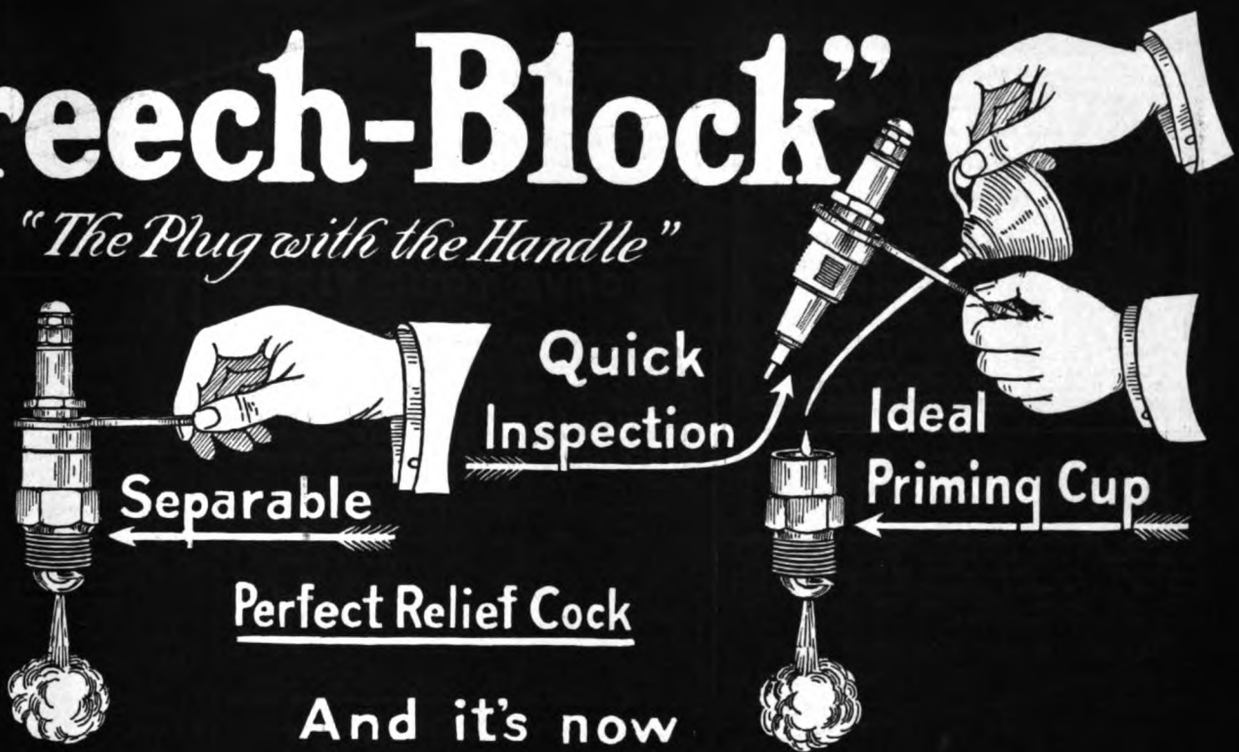
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| Mosler | Apr. 22, 1902<br>Sept. 15, 1903 | Mosler Application |

**Other Patents pending.**

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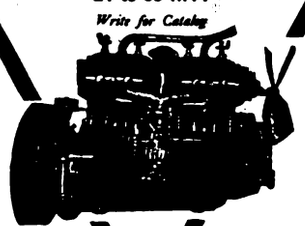
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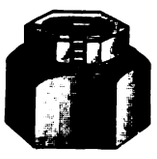
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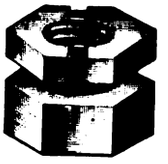
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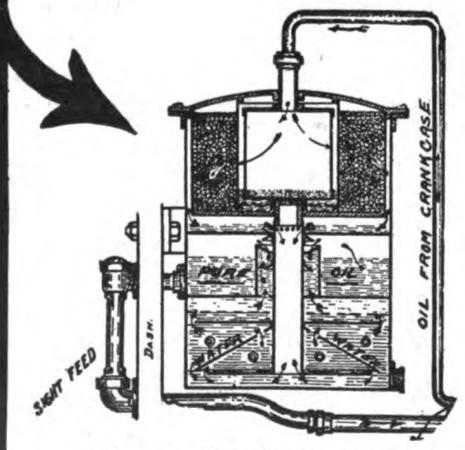
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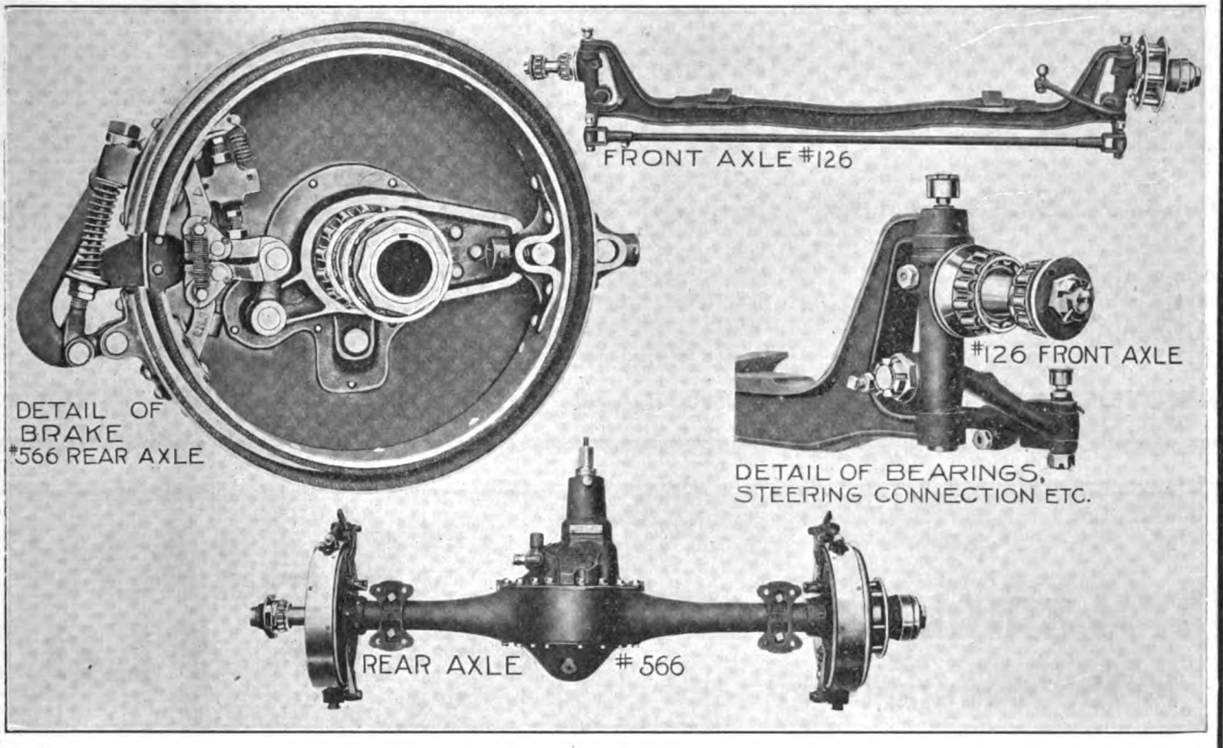
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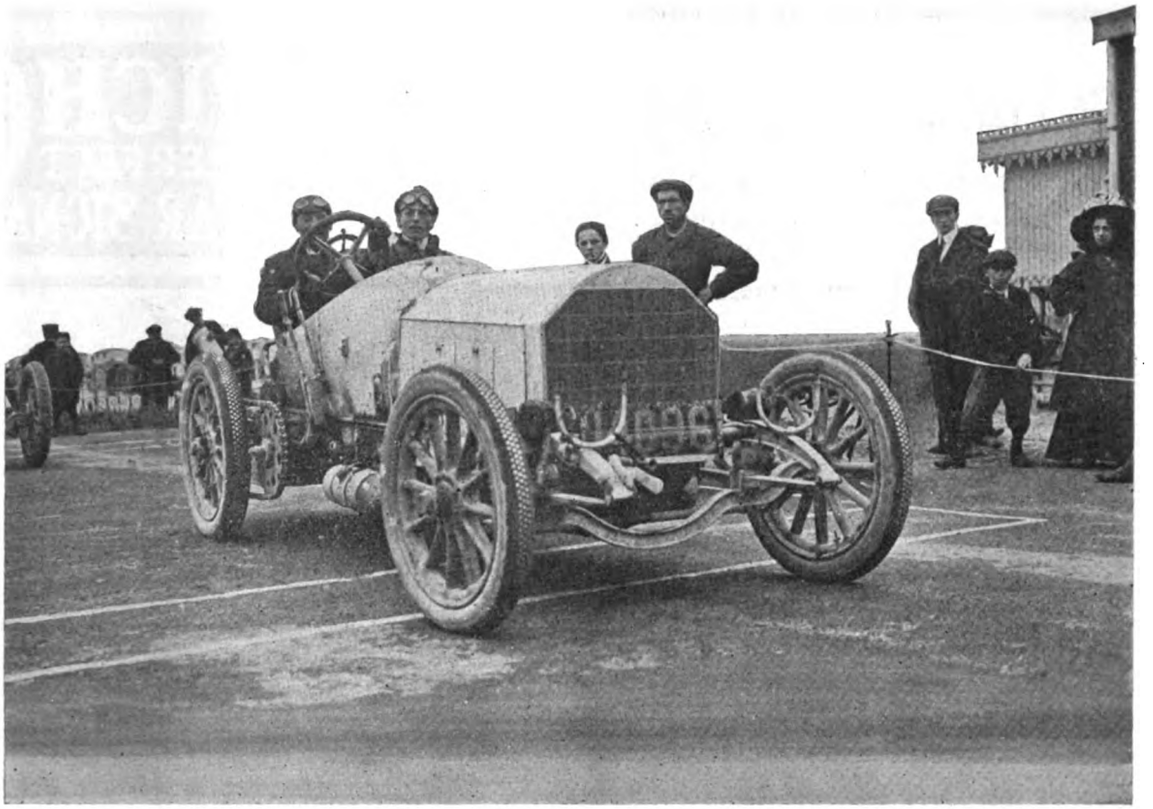
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### Another Bosch-Equipped World's Record—Stearns Does 1253 Miles in 24 Hours.

**At the Brighton Beach Race, August 19-20th, the Bosch-equipped Stearns won the race and established a new world's record for the 24 hours. Matheson second and Houpt third also used Bosch Ignition.**

### Still Another Clean Sweep—Brighton Beach Races, August 13th, a Bosch-Equipped Triumph.

**Every one of the 8 races at the Brighton Beach Matinee Races of August 13th was won by a car equipped with a Bosch Magneto. The victorious Bosch-equipped cars were: Ford; S.P.O.; Fiat; S.P.O.; Simplex; National; Fiat: S.P.O.**

# BOSCH MAGNETO COMPANY

## 223-225 West 46th Street, NEW YORK

**CHICAGO BRANCH: 1253 Michigan Avenue** **DETROIT BRANCH; 878 Woodward Avenue**
**SAN FRANCISCO BRANCH: 357 Van Ness Avenue**

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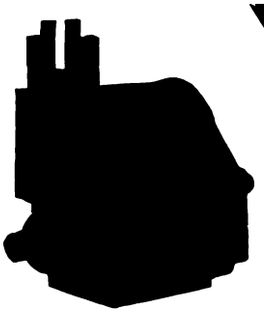
# Every Turn and Piece

of the magneto needs the most careful and skillful workmanship if the device is to be permanently and reliably efficient in service.

## Dealing with Electricity

requires painstaking thoroughness, such as is provided in the

# Pittsfield



## "Arc Flame System" Magneto

High tension, with stationary, removable coil. No moving wire on the armature. Each spark is followed by an arc flame. This arc flame will ignite a much weaker mixture than with the spark produced by the usual coil ignition. A variation of 45 degrees is allowed on the magneto shaft, which means 45 degrees in the crank shaft for a four cylinder, four cycle motor, as the magneto runs at crank shaft speed.

The retarded spark is just as efficient as the advanced spark, making it easy to start the motor with a quarter turn of the crank, with the timing lever fully retarded.

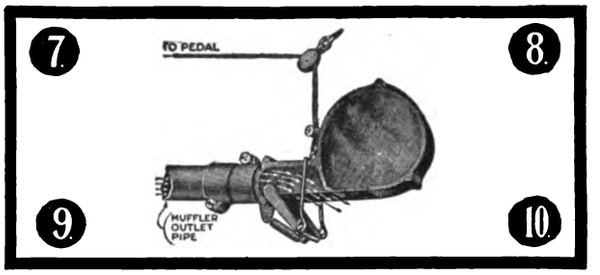
*Get the catalog of the "Pittsfield Ignition System"*

## Pittsfield Spark Coil Co.

**DALTON, MASS.**

SALES REPRESENTATIVES—NEW ENGLAND, W. J. Connell, 36 Columbus Ave., Boston. ATLANTIC STATES, Thomas J. Wetzel, 17 W. 42d St., New York. CENTRAL STATES, K. Franklin Peterson, H. V. Greenwood, 166 Lake St., Chicago. MICHIGAN, L. D. Bolton, 319 Hammond Building, Detroit. PACIFIC COAST, The Laugenour Co., San Francisco.

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## THE PERFECT MOTOR CAR SIGNAL




*The above is our claim*

**WE MAKE IT UNQUALIFIEDLY**

Say "JERICHO" to any one of the thousands of satisfied users to-day—north, south, east, west—and they will substantiate this claim.

There is a size to fit *your* car. Consult your dealer, or write direct to us for folder.

**THE RANDALL-FAICHNEY CO., Boston, U. S. A.**

**Makers of "B-LINE" OIL and GREASE GUNS**




YOU owe it to yourself not to buy a motor car until you can say:

*"I am thoroughly familiar with the National."*

**NATIONAL MOTOR VEHICLE CO.**

1007 E. 22d St., INDIANAPOLIS, IND.

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# Pullman AUTOMOBILES

We are desirous of securing energetic, progressive dealers in the Middle West and South to represent us in the territory still unallotted. Our agency proposition for 1911 is unusually attractive to that class of dealers who wish to represent a permanent car in service and who are in business permanently.

This class of dealers is strongly urged to write or wire to us immediately for territory if we have no representative in their section.

Only a limited number of PULLMAN cars will be built in the 1911 season, for delivery on specified dates, and it behooves live dealers to get in communication with us at once, or preferably come to our factory and see our facilities for turning out the permanent PULLMAN.

Write for advance 1911 printed matter. (See Motor World of August 11 for description of 1911 models).

## PULLMAN MOTOR CAR COMPANY, York, Pa.

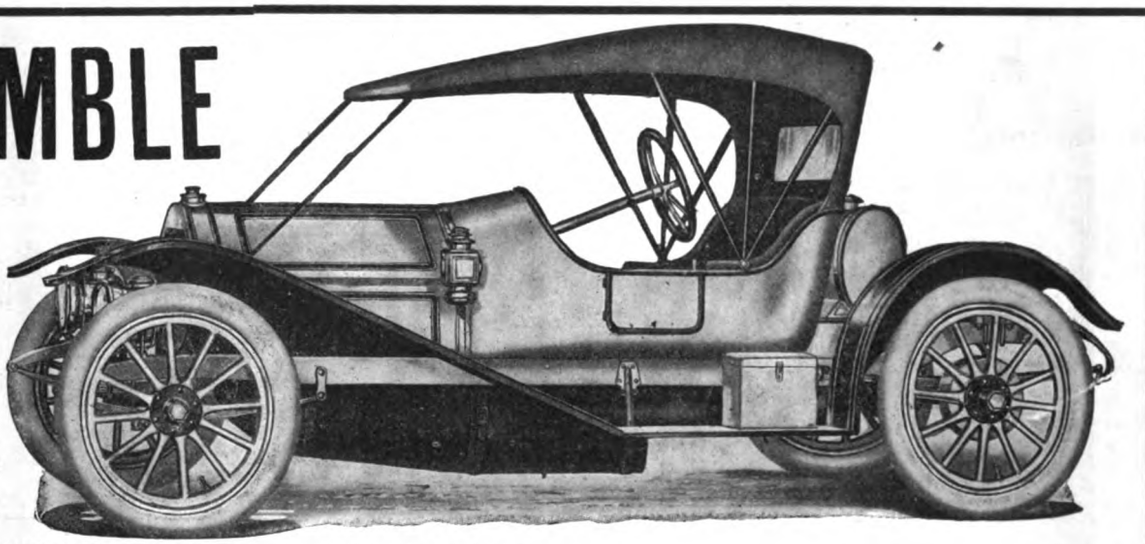
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# De TAMBLE

## 1911 Special

## 36 H. P., $1000

Four-cylinder unit power plant, multiple disc clutch, selective type sliding gear transmission, 112-inch wheel base, 34-inch wheels, all metal body in one unit.



SOMEONE—SOMEWHERE—SOMETIME may duplicate this car.
NO ONE—NOWHERE—NOW is offering such remarkable value in a car.

The fact that we make every working part of this car at our own factory (with exception of wheels and axles), under our personal supervision and management, has made it possible to list same at a price which brings it within the reach of all who desire an unqualifiededly dependable car at the most reasonable price ever offered. In fact we take a broad stand and assert, and will prove, that this car at $1000 is equal to the best on the market at $1200 and superior to most.

The cars which we build and offer for 1911 are positively beyond any experimental stage. They embody every modern and up-to-date feature known in the trade; are designed for the purpose of elegance of appearance, increased power and dependability of construction. Despite the remarkable low prices at which we list our product, each car is guaranteed for one year. No other car is more worthy such a dependable guarantee as the De Tamble.

Considering our very low prices we can, and do, offer live agents as good, and on the average a better selling proposition than is generally found in the automobile market. For full information on complete line write direct to

**THE DE TAMBLE MOTORS COMPANY, Anderson, Indiana**


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GUARANTEED 5000 MILES

# AJAX EXTRA HEAVY NON-SKID TIRES

THE extra heavy tread on Ajax Non-Skid Tires was not designed for pictorial or advertising effect, but along scientific lines following our endeavor to prevent skidding, and at the same time retain the easy riding and long wearing qualities of the Ajax Smooth Tread Type.

*THIS* tread is made in rectangular shaped blocks of rubber with beveled edges, providing forward and backward traction and resisting side-slipping. There are no steel studs to wear smooth and present a skating surface or to disintegrate the tread—just pure rubber.

*REMEMBER*—AJAX NON-SKID TIRES are guaranteed for 5000 miles or 200 days' service—the same as the Ajax Smooth Treads.

*What other Non-Skid tire is so guaranteed?*

**AJAX-GRIEB RUBBER CO.**

**General Offices: 1777 Broadway, New York**

**Factories: Trenton, N. J.**

BRANCHES:

New York, Boston, Philadelphia, Atlanta, Detroit, Chicago, Kansas City, Minneapolis, Denver, Col., Seattle, Portland, San Francisco, Los Angeles, Milwaukee, St. Louis.

# Mr. Automobilist:

Your tire maker is very anxious to impress upon you the importance of

## Tires Inflated to the Right Pressure

He insists that this is tire economy and

## Saves You Money

How do you know what pressure you have in your tires?

# A Schrader Universal Tire Pressure Gange

(Trade Mark Registered in U. S. Patent Office)




(Patented March, 1898—Other Patents Pending)

will tell the exact pressure in your tires at any time, day or night, by simply holding this Gauge to your Valve for a second. Its recording sleeve remains in place, showing the exact pressure in the tire so that the Gauge can be taken anywhere and read, at night to the front of the car into the light of the lamps. After the pressure has been ascertained the Indicating Sleeve can be pushed back into the Gauge with your finger. No catches or snaps to operate or get out of order. This Gauge is 2½ inches long over all, short enough to apply easily to the smallest diameter of wheel and can easily be carried in the vest pocket or the change pocket of your trousers.

**Price $1.00 Each**

**Ready for Delivery Now**

## Guaranteed Simple and Absolutely Accurate

Can be obtained from all tire manufacturers and the dealers, or

**A. SCHRADER'S SON, Inc.**

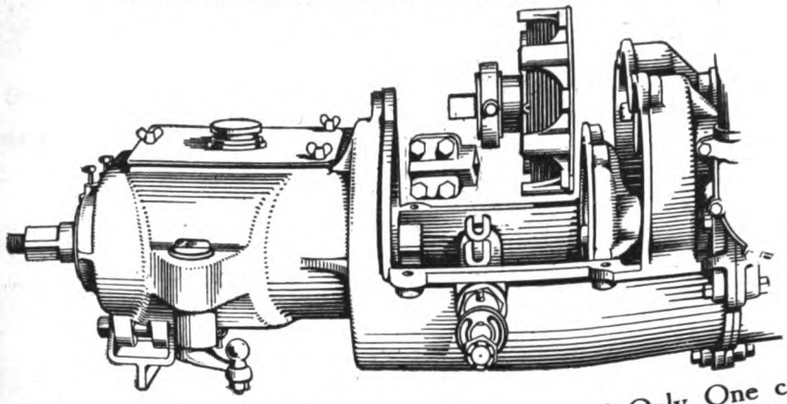
**28-32 Rose Street New York City**


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# Stevens-Duryea

THREE POINT SUPPORT – UNIT POWER PLANT

STEVENS-DURYEA PATENTED MULTIPLE DISC CLUTCH
STANDARDIZED SINCE 1905



*Convince yourself* that our Multiple Disc Clutch is the One and Only One correct design of transmitting and releasing power of motor to transmission.

*Our* literature tells you all about it. Mailed for the asking.

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CHICOPEE FALLS – MASS.
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The Pioneers to Employ 92% of Balls in the Raceway



SCHAFER Ball Bearings

Fear No Comparison

SOLE IMPORTERS: BARTHEL, DALY & MILLER, 42 Broadway, New

Number of Balls contained in "SCHAFER" SILENT TYPE BEARINGS STANDARD SIZES

| Bearing Number | Number of Balls | Bearing Number | Number of Balls | Bearing Number | Number of Balls | Bearing Number | Number of Balls |
|---|---|---|---|---|---|---|---|
| 1 | 12 | 50 | 9 | 102 | 10 | | |
| 2 | 13 | 51 | 11 | 103 | 13 | | |
| 3 | 15 | 52 | 11 | 104 | 13 | | |
| 4 | 13 | 53 | 10 | 105 | 17 | | |
| 5 | 16 | 54 | 11 | 106 | 18 | | |
| 6 | 15 | 55 | 10 | 107 | 21 | | |
| 7 | 15 | 56 | 11 | 108 | 23 | | |
| 8 | 15 | 57 | 11 | 109 | 22 | | |
| 9 | 15 | 58 | 12 | 110 | 24 | | |
| 10 | 16 | 59 | 11 | 111 | 23 | | |
| 11 | 17 | 60 | 11 | 112 | 24 | | |
| 12 | 17 | 61 | 14 | 113 | 23 | | |
| 13 | 17 | 62 | 14 | 114 | 24 | | |
| 14 | 17 | 63 | | 115 | 23 | | |
| 15 | 16 | | | 116 | 24 | | |
| | | | | 117 | 23 | | |
| | | | | 118 | 25 | | |
| | | | | 119 | 23 | | |
| | | | | 120 | 24 | | |
| | | | | 121 | 23 | | |
| | | | | 122 | 24 | | |

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No thinking automobile manufacturer will place his next year's frame business without first making sure of the frame maker's ability to deliver. To satisfy everyone on this point, once and for all, our Mr. A. O. Smith designed and had built, during the past year, the largest and best equipped pressed steel automobile frame plant in the world. It is 1025 feet x 286 feet, absolutely fire-proof, with a press equipment which easily turns out over 1000 sets of frame parts per day. This enormous capacity is amply sufficient to take care of all the frame business in the United States and gives our customers positive assurance of prompt and satisfactory service.

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**Price $1.00**

Made in all sizes. Mica and Porcelain interchangeable.

**Please Do Not Confuse**

## Auburn Ignition Spark Plugs

with similarly named, poorly constructed imitations. When you buy Spark Plugs please see that the words

**"THE AUBURN IGNITION PLUG"**

are stamped on the metal of the hexagonal nut, also on the porcelain. These words guarantee the plug fully, and assure you that you are receiving the original and genuine Auburn Ignition Plugs—plugs made in the largest factory devoted exclusively to plug making in the country.

The use of a similar name on a cheap and inferior product has forced us to give this notice to motorists, and to the trade in general:

**AUBURN IGNITION SPARK PLUGS**—both mica and porcelain—are as superior a product as can be produced from the finest materials by the most up-to-date methods known to the manufacturing world.

Our reputation was made on them—our guarantee is back of them.

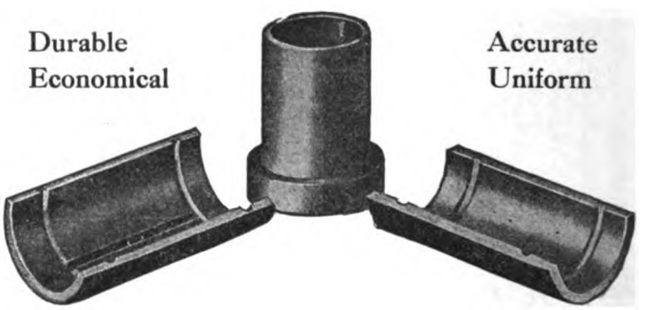
**Remember, please, that The Auburn Ignition Mfg. Co. is in no way connected with any other company previously in Auburn, N. Y., or now doing business in Auburn, N. Y.**

**THE AUBURN IGNITION MFG. COMPANY**
**Dept. J, Auburn, N. Y.**

## Franklin Die-cast Bushings

Durable
Economical

Accurate
Uniform



If we can turn out better bushings for you at lower cost than you now pay for machine finished bearings won't it pay you to investigate our process?

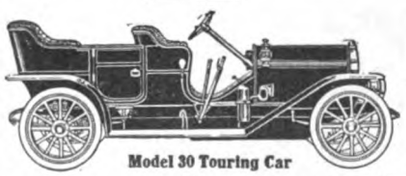
Franklin die-cast bushings, made of special hard babbitt, will save you money and time. They wear longer and fit better. They are perfectly uniform and interchangeable. No filing, turning or grinding. Automobile manufacturers find them preferable to phosphor bronze bearings.

Send us samples of your bushings, and we will be glad to make an estimate for you.

**Write for our new booklet D, which tells all about the Franklin process of die casting. It will be worth you while.**

Franklin Manufacturing Company
202 South Geddes Street, Syracuse, N. Y.

The $1750 **Inter State** "40"



**Model 30 Touring Car**

**Speedy, Graceful, Easy-Running, Reliable.**

Of all the good ones
THE INTER-STATE
is the best in its class,
Refinement of Design, Superior Workmanship and Able Organization Make this Possible.

*Our proposition is interesting to all dealers.* (29)
*Compare our specifications with any high-priced car.*

INTER-STATE AUTOMOBILE COMPANY, Muncie, Ind.
Licensed under Selden patent.

The only car of established reputation selling at a moderate price.

# HAYNES

**$2000**

Station C, KOKOMO, IND.

**Licensed under Selden Patent.**


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More Power

Less Gasoline

Steady Pull




More Speed

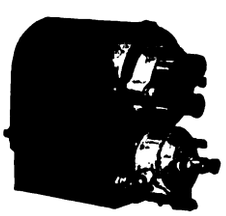
Less Heat

Less Vibration

**MAKES A FOUR CYLINDER RUN LIKE A SIX CYLINDER ON THE GASOLINE CONSUMED BY A TWO CYLINDER**

**THE GREATEST SCIENTIFIC ADVANCE THE GASOLINE MOTOR WORLD HAS EVER KNOWN**
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## TRANSCONTINENTAL RECORD BROKEN

**The "4-30" Reo Equipped with a**

# Splitdorf Magneto

crosses the continent from New York to Frisco, 3554 miles, in 10 days, 15 hours and 13 minutes, lowering the World's Record 4 days and 11 hours.

When we consider the almost continuous running of the motor over mountains and all kinds of roads, and the many obstacles incidental to such a journey, this feat of the Reo reflects the greatest credit upon car, equipment and drivers, and stands out as

## A Truly Wonderful Performance

the accomplishment of which speaks volumes for the Perfect Ignition which made it possible.

This is Actual Service of the most strenuous kind, and only serves to further prove the great Efficiency, Reliability and Endurance of the SPLITDORF Magneto.

*Ask for Magneto Catalog*

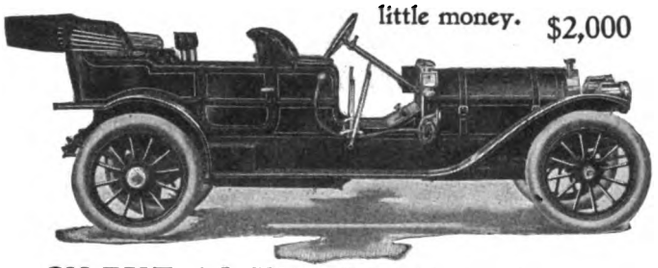
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THE
# MITCHELL SIX
The only six cylinder car in the world that sells for so little money. $2,000



SILENT AS THE FOOT OF TIME

Specifications: MOTOR, 4½x5. TRANSMISSION, selective type. WHEELS, 36x4. WHEEL BASE, 130 inches. IGNITION, magneto and dry cells. Color, dark blue, cream running gear; option, dark maroon, cream running gear. TOOL BOXES, steel baked enamel. SEATING CAPACITY, seven passengers. STEERING WHEEL, natural finish. SPRINGS, platform type. BODY OPTIONS, seven-passenger touring car or close-coupled body. EQUIPMENT, oil lamps and horn, full tool equipment, including jack.

# MITCHELL

Licensed under Selden patent.

*F. O. B. Racine, Wis.* Racine, Wis., U. S. A.

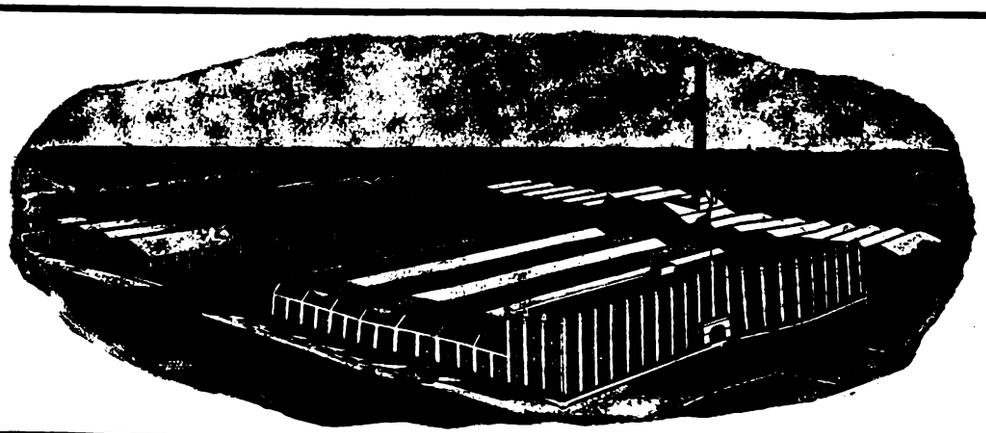
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¶ Die cast from Parson's white brass make the finest kind of engine bearings.

¶ Absolutely accurate and every one interchangeable.

¶ We are now making 25,000 bearings per day, and increasing output as rapidly as possible. A case where quality is recognized and put to use.

WETHERILL FINISHED CASTINGS COMPANY
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THE OUTPUT of complete Front and Rear Automobile Axles of this plant exceeds the capacity of all competition combined.

**The American Ball-Bearing Company**
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*The Quality Kina*

If you use Cap and Set Screws or A. L. A. M. standard castellated or plain Nuts, just bear in mind that we can furnish them immediately from stock at factory and warehouses.

Your samples or drawings will bring immediate quotations on all classes of work in brass, iron and steel. The quality is "Acme," the price right, and the delivery prompt.

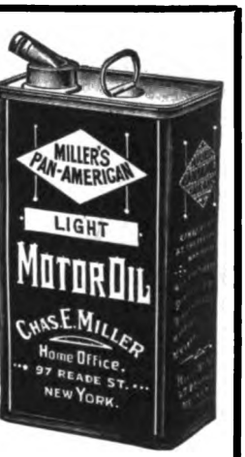
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**CLEVELAND, OHIO**

NEW YORK, 77 White Street; CHICAGO, 549 Washington Boulevard; BOSTON, 141 Milk Street; DETROIT, 1222 Majestic Building, and ATLANTA, Candler Building. WAREHOUSES: NEW YORK, 77 White Street; CHICAGO, 549 Washington Boulevard.

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**Pan-American Motor Cylinder Oils**

are refined from **the finest grade Pennsylvania Crude** and are pure, distilled, highly-filtered mineral oils. **Have a high fire test, low cold test** and not affected by climatic changes. **They are made in three grades** suitable for all types of water and air cooled **Motor Cars, Motor Boats and Motorcycles.** In order to convince you of the efficiency of these oils we are willing to make you a **special price** for an initial order, much lower than usually quoted on other high grade oils.

**WE HAVE HANDLED THIS OIL DURING THE PAST EIGHT YEARS AND DO NOT HESITATE TO RECOMMEND IT TO BE THE EQUAL OF ANY FIRST CLASS OIL ON THE MARKET.**

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**Radiators, Hoods, Fenders, Sheet Metal Parts of All Kinds**

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# STEERING GEARS CONTROL LEVERS RADIATORS

PROMPT DELIVERY

CENTAUR MOTOR COMPANY
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## Standard Equipment

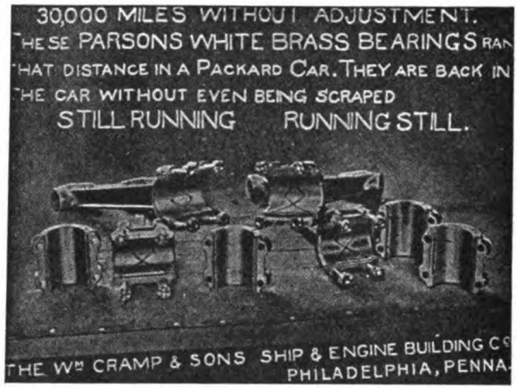
means the best in automobile accessories. They eliminate trouble, reduce cost of upkeep and make motoring safe, comfortable and enjoyable.

Jones Speedometers
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UNITED STANDARD EQUIPMENT MANUFACTURERS — WE PROTECT THE DEALER, THE OWNER AND THE CAR

Soot-Proof Spark Plugs
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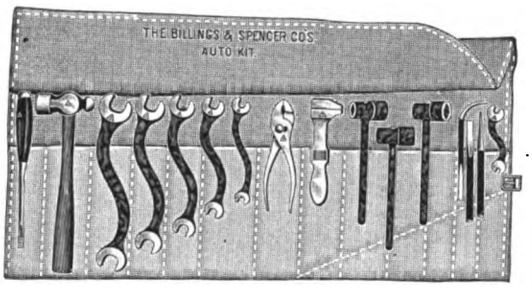
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# Cramp — Metals

## The B & S Tool Kit

Every tool a steel drop-forging, a handy and popular selection. No better guarantee than the fact that each tool is made by




New Catalog
THE BILLINGS & SPENCER CO., Hartford, Conn.

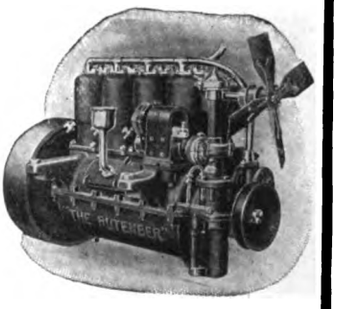
## Ready for More Business

Increased facilities, new buildings, new machinery, enables us to make more motors.

**NOW IS YOUR TIME**
**Nothing better ever made than the Rutenber.**

Write for list of manufacturers using the Rutenber. Write for list of agents who say it sells the car. Write for personal testimonials, praising its power, speed, endurance and economy.

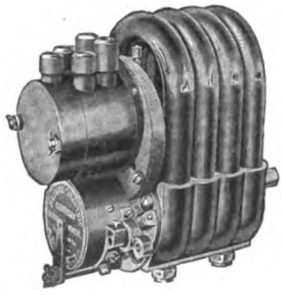
Latest improvements. Each motor carefully tested and fully guaranteed.



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## Heinze High Tension Magneto



**Construction**—Mechanically unequalled.

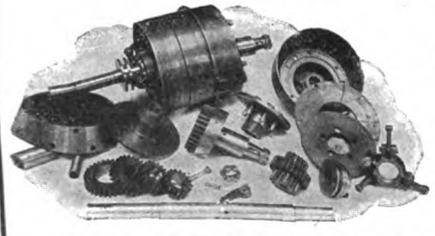
**Durability**—Greater than the life of the car.

**Efficiency**—Proven by the users.

*Catalogue H with full information is yours for the asking.*

**HEINZE ELECTRIC COMPANY**
Lowell, Massachusetts

# WARNER GEAR COMPANY
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25 H. P. PLANETARY TRANSMISSION
Showing Both Cone and Disc Type Clutch.

Steering Gears
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Differentials
Clutches
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FOR 1910

**"Full Jeweled!" A Splendid Car Perfected!**

Touring Cars, Runabouts and Toy Tonneaus . . $2,750.00
Including Cape Top, Bosch Magneto and Prest-O-Lite Tank in addition to all regular equipment.

*Write for advance circular H.*

**The Corbin Motor Vehicle Corporation,** New Britain Conn.
Licensed under Selden Patent.

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**Get It**
and keep it by taking the agency for the
**MONITOR**

The 2000 pound car shown will do the work of three horse-drawn vehicles at one-half the cost. Write for prices and agency offer before your territory is taken.

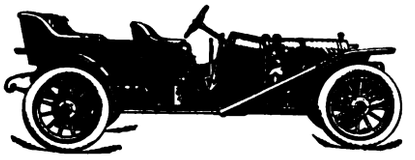
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**Designed Right**
**Built Right-Priced Right**

# MERCER

TOURING CAR
TOY TONNEAU
SPEEDSTER

**Each $2150**



**Style, Luxury, Quality, Strength, Speed.**

**Made Right and Stays Right**

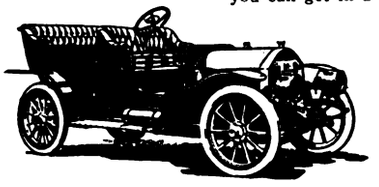
*Let us hear from you.*

**MERCER AUTOMOBILE CO., Box 126, Trenton, N. J.**

# =Pierce-Racine=

**The Car with a Famous Engine**

You will have to look to the high priced American and foreign cars for the same value you can get in a Pierce-Racine at— **$1750**



If you were to pay $4,000 for a car you could not get a more satisfactory motor or an easier running car.

Send for catalog today.

**PIERCE MOTOR COMPANY**
**111 22nd St., Racine, Wis.**

# Badger 30 $1600

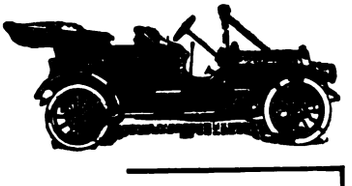
**112 inch wheel base, 34 inch wheels, quick detachable rims, Bosch dual ignition with storage battery, selective type transmission, Brown-Sharpe gears, F. & S. ball bearings.**



*Write for our new liberal agency proposition.*

**BADGER MOTOR CAR COMPANY, Columbus, Wis.**

# $1,600 Cartercar



Model "L," 4 cylinder, 30-35 H.P., 110 inch wheel base, 5 passenger, Friction Transmission. Chain-in-Oil Drive, any number of speeds, will climb a 50% grade with load, including magneto, gas lamps, generator, horn, mats, tools, jack, etc. $1,600.

Model "H," 4 cylinder, 25 H.P., 100 inch wheel base, Runabout $1,100. Double Rumble $1,125 Double Divided Rear Seat $1,150. Miniature Tonneau $1,150.

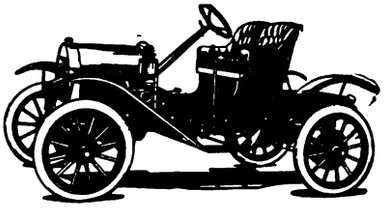
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**CARTERCAR CO.**
**Pontiac, Mich.**
Licensed Under Selden Patent.

# EVERYMAN'S CAR

**Seven Models**

**Send for Literature**



**The BRUSH $485.00**

**BRUSH RUNABOUT COMPANY**
**414 Baltimore Avenue, Detroit, Mich.**

# The 1911 Metz Runabout

**Assembled, Trimmed and Painted, Completely Equipped** **$485** **Our entire output will be handled exclusively by dealers.**

**Applications for agency will be considered in rotation in which they are received. Wire your application for territory and follow with letter giving particulars regarding your facilities for handling agency and number of cars you expect to sell each month of our fiscal year beginning August 1.**

**METZ COMPANY, Waltham, Mass.**


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# MORGAN & WRIGHT TIRES ARE GOOD TIRES

## THE SELDEN CAR
FOR 1910

| | |
|---|---|
| 5-Passenger Touring Car | $2,000 |
| 3-Passenger Roadster | 2,000 |
| 4-Passenger Torpedo Tonneau (Magneto Included) | 2,250 |
| 7-Passenger Touring Car (Magneto Included) | 2,500 |

Booklet and specifications upon application.

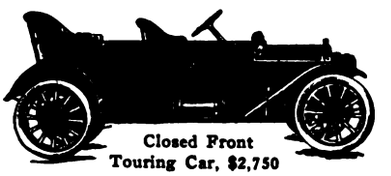
AGENTS WANTED IN UNOCCUPIED TERRITORY.

SELDEN MOTOR VEHICLE CO.

GEO. B. SELDEN, President, - ROCHESTER, N. Y.

Licensed under Selden patent.

## THE MARMON
"The Easiest Riding Car in The World"



Closed Front Touring Car, $2,750

Has won practically all the important long-distance racing events of America.

NORDYKE & MARMON CO., Indianapolis, Ind.
(*Estab. 1851*)

Licensed under Selden patent.

Not a Car of Advertised Value,
But a Car of Intrinsic Worth.

## STERLING

$1750

Let us send you our Catalog

ELKHART MOTOR CAR COMPANY, Elkhart, Ind.

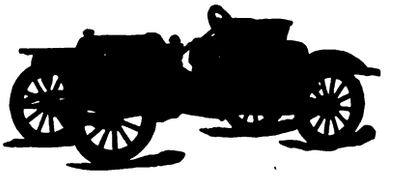
## K-R-I-T

"The car with the invisible start."

96 in. wheel base
32 in. wheels

22½ H. P. $800

Sliding gear transmission. Multiple disc clutch. Weight, 1200 lbs.



Runabout $800.
Roadster $825.
Surrey $850.

Write for Catalog

K-R-I-T Motor Car Company
DETROIT

## Maxwell Cars—1911 Line

| Model | Style | Cylinder | H.P. | Price |
|---|---|---|---|---|
| E. A. | Touring Car | 4 | 30 | $1600 fob |
| G. A. | Touring Car | 4 | 30 | 1600 fob |
| G. A. | Roadster | 4 | 30 | 1600 fob |
| E-11 | Touring Car | 4 | 30 | 1500 fob |
| G-11 | Touring Car | 4 | 30 | 1575 fob |
| I | Touring Car | 4 | 25 | 1100 fob |
| Q-11 | Runabout | 4 | 22 | 900 fob |
| Q-3-11 | Touring Car | 4 | 22 | 1000 fob |
| A. B. | Runabout | 2 | 14 | 600 fob |

Maxwell-Briscoe Motor Co. Vale Street Tarrytown, N. Y.

THE THOMAS FLYER is the champion endurance car of the world. Over 80 per cent. of the people who own Thomas Flyers previously owned other cars. They were in a position to appreciate automobile values. The Thomas Flyer is now their unqualified choice.

The E. R. Thomas Motor Company maintains a force of traveling experts who periodically call upon every Thomas owner and make sure that his car is in good condition. Let us send you some of the letters from our owners and some of our interesting engineering literature.

E. R. THOMAS MOTOR CO., Buffalo, N.Y.

Licensed under Selden Patent.




The Master Magneto!

TRUE HIGH TENSION TYPE

J. S. BRETZ COMPANY

SOLE IMPORTERS

TIMES BUILDING NEW YORK


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## Real Radiators

made of individual square tubes so much imitated in appearance, only.

## FEDDERS RADIATORS

are just what they appear to be—genuine square tubes. Furnished with tubes "staggered" or Mercedes finish.

You See the Fedders on the Finest Cars

FEDDERS MANUFACTURING WORKS, Buffalo, N. Y.

## SERVICE and SATISFAOTION

are assured when

## G&J TIRES

are used.

G & J TIRE CO., Indianapolis, Ind.

We Sell Continental Demountable Rims.




## A Real Battery
### AT A REAL BARGAIN

We have on hand a number of 6 v. 60 amp. dry type storage batteries, built for us by one of the best known manufacturers. These batteries were built to sell at $26.00 and are worth the money, but as we have accidentally become overstocked, we offer them while they last at $12.50.

No better battery is built or sold at any price.

EXCELSIOR SUPPLY CO. (*Estab. 1876*) Randolph St. Bridge CHICAGO, ILL.

## Diamond
### The Pioneer Motor Tires of America

FIRST—BEST

THE DIAMOND RUBBER COMPANY, Akron, Ohio

## HARDENING
### High Speed Steel Hardening a Specialty

Case Hardening, Tool Steel Hardening
Heat Treating and Annealing

BRIDGEPORT METAL TREATING CO.
Bridgeport, Conn.

## The Royal Equipment Co.

Manufacturers of

TRADE MARK Raybestos

BRAKE LINING

and

The Raymond and Duplex Brake

436 Housatonic Ave., BRIDGEPORT, CONN.

When in Detroit stop at

## Hotel Tuller



Automobile Headquarters.
Absolutely Fireproof.
Every Room Has Bath.
Rates $1.50 up.
In the Center of the Business District Facing Beautiful Grand Circus Park.
Finest Grill Room in the City.
Our Grand Roof Garden Cafe Opens June 1st.
Vocal and Instrumental Music.

L. W. TULLER, Prop.

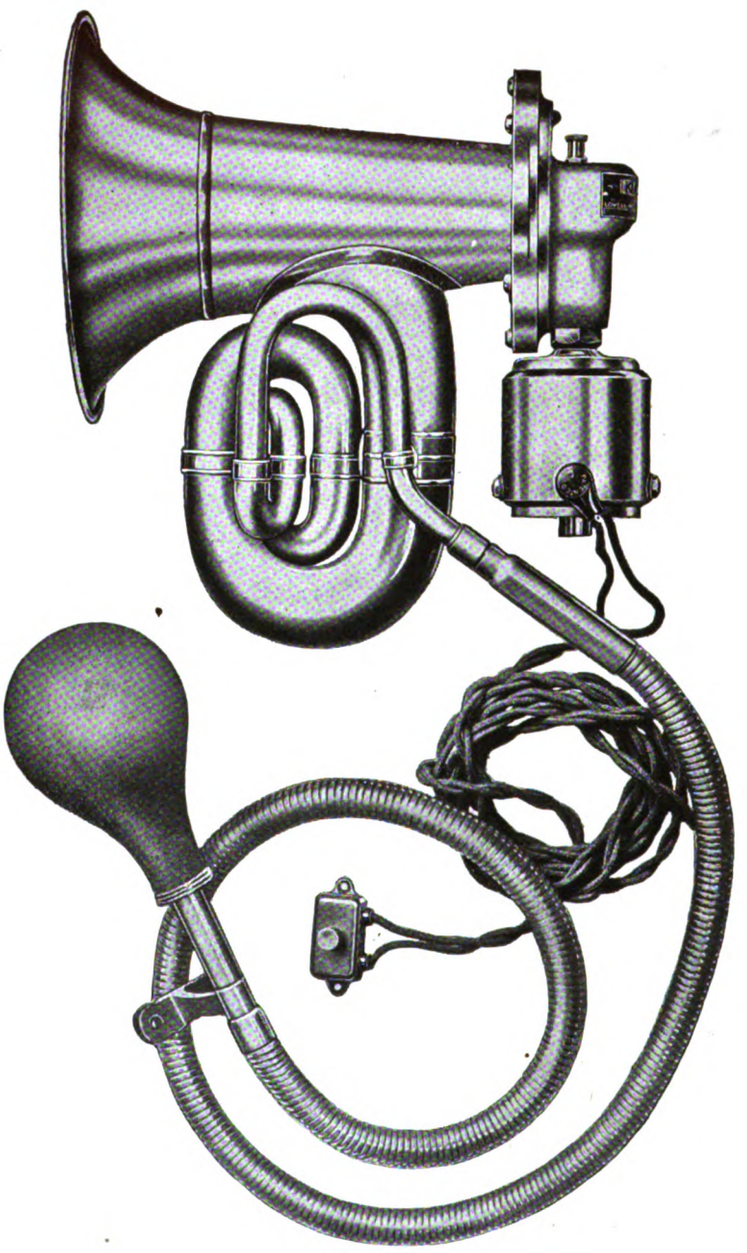
## THE ATWATER KENT
## UNISPARKER

"Gives Perfect Ignition"

ATWATER KENT MFG. WORKS
33 North Sixth Street PHILADELPHIA, PA.


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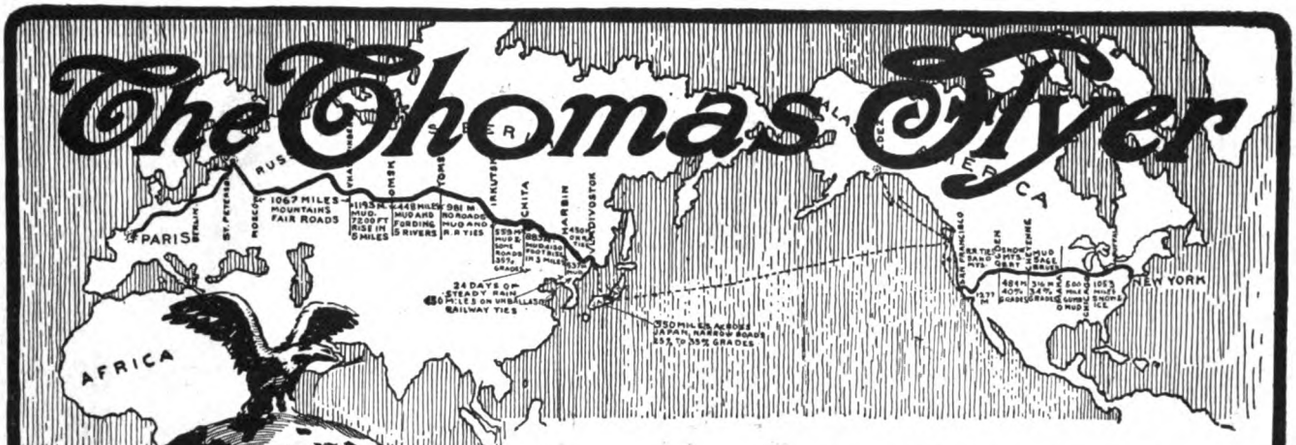
The
Combination Klaxon



FIFTY DOLLARS

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# The Thomas Flyer







New York-Paris Trophy.—Height 8 ft., weight 1800 lbs. Largest trophy in world ever offered or won in any contest.

## Owners Will Tell You

that the Great Reserve of Horse Power for the Weight, Combined with the Wonderful Six-Cylinder Flexibility, makes the Thomas Flyer Quieter, Smoother and Easier Running over Country Roads and Hills, or Midst the Crowded Traffic of the City, than any other Car—and this Always on High Gear.

## OWNERS WILL TELL YOU—

### *Please Read This*

THOMAS FLYERS have a range of speed on high gear from two to sixty miles an hour—slower than a man walks or faster than an express train—the Thomas 6-70 Flyer is much faster. This flexibility means more than mere figures. It means that you don't have to rush hills or change gears to negotiate them. Your car runs at an even speed over hill and dale all day long without the noise or trouble of changing gears—no change except the throttle. It means pleasure, comfort, more mileage, with a reasonably continuous speed, under all conditions—unquestionable reliability as proved in the New York to Paris race, perfect score in three Glidden Tours—all we entered—the world's non-stop record of 21 days, 3 hours and 29 minutes in zero weather on public roads; 24 hour races and innumerable minor events.

Cincinnati, May 17, 1910

E R. THOMAS MOTOR COMPANY
Buffalo, New York.

Gentlemen:—

I can assure you that I am not only pleased but entertain considerable pride in being the owner of a "Thomas Car" which has been in use since November, 1909 and has passed the 3000 mile record.

It is also a pleasure for me to volunteer the statement, that outside of oils and tires, the cost has been nothing.

It is surely possessed of the requisite features that combine pleasure with safety I am an enthusiast of the "Thomas M/R. Flyer" and claim it unexcelled in speed comfort and durability.

Yours sincerely,

JNO. B. SCHEIBLY.

You buy a car for pleasure and comfort. Why not pick out the one that has demonstrated its ability on all of these points.

**Over 81 per cent** of the owners of Thomas cars previously owned cars of other makes. When the time came to buy their second cars, they were in a position to appreciate automobile values. The Thomas Flyer is now their unqualified choice.

## E. R. THOMAS MOTOR COMPANY

*Branches:* NEW YORK, CHICAGO, BOSTON

BUFFALO, U. S. A.

Licensed Under Selden Patent

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# The Dayton Motor Car Co.

**Dayton, Ohio**

place the largest individual order ever given for demountable rims. All 1911 Stoddard-Dayton and Courier cars will be equipped with

# THE STANDARD UNIVERSAL RIM

**MANUFACTURED BY**

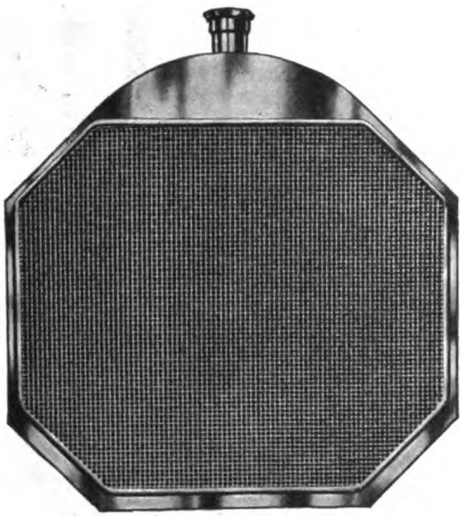
## The United Rim Company

**Akron, Ohio**

The wholesale adoption of the Standard Universal Rim by representative automobile manufacturers is the best argument in favor of its practical and desirable demountable and quick detachable features.

# FITS ALL TIRES


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The Mayo—the radiator thoroughbred

IF THE REST OF THE AUTOMOBILE IS AS GOOD AS THE MAYO RADIATOR, IT'S ALL RIGHT

Mayo Radiator Company
NEW HAVEN, CONNECTICUT

# Ride Rough Roads in a Parlor Car

When we say that the CONNECTICUT SHOCK ABSORBER is by far the best absorber ever produced—barring none—we make a strong claim. But—we can prove this claim to your satisfaction. It is an absolute fact.

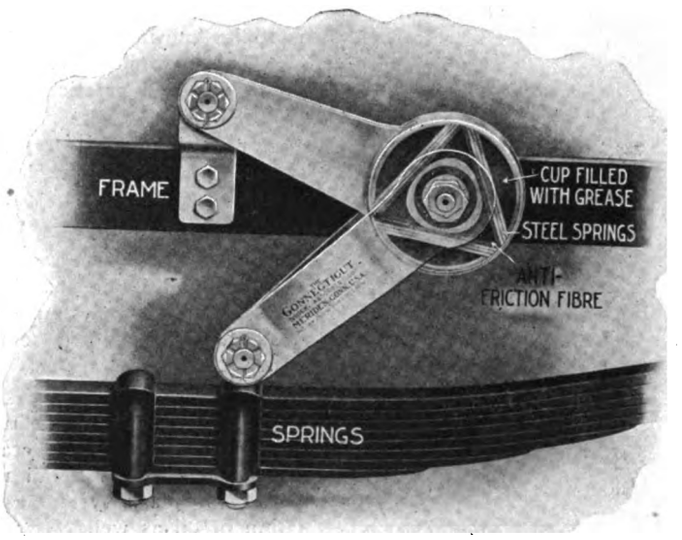
The ordinary shock absorbers have not kept pace with the radical improvements in motor cars. Knowing this, we set out to build an up-to-the-minute absorber, with exclusive features, with the most improved design.

**They are built the**

**CONNECTICUT**

**Way.**

That is your guarantee of perfection in material and design. Our reputation stands back of these absorbers—they are guaranteed and if they do not do ALL we claim for them—your money is cheerfully refunded.. Write us for particulars.

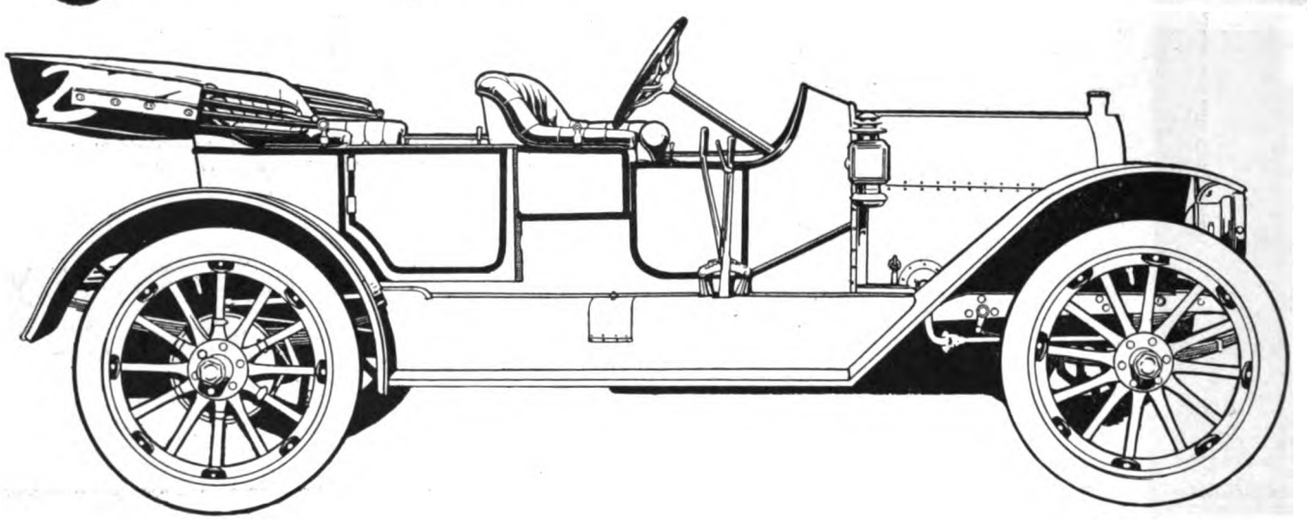



UNITED STANDARD EQUIPMENT MANUFACTURERS WE PROTECT THE DEALER, THE OWNER AND THE

**Counecticut Shock Absorber Dept. United Manufacturers**
**250 West 54th Street, New York**


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# Columbia 1911



## One of the THREE BEST Cars Built

**NEW CARS FOR 1911.** For the season of 1911 there are two Columbia gasoline cars. The well known and widely appreciated Mark 48 car is continued with certain refinements, and in 1911 is to be known as Mark 48 lot 5. There is, too, a new high powered model, Mark 85. This new motor car includes every motoring desire, and in essentials measures up to standard practice.

**MARK 85 MOTOR.** Motor is of "T-head" type, with cylinders 4⅞ x 5½ inches and cast in pairs. The water jacket areas are large and include cooling of valve seats and stems. The crankshaft and moving parts are closely machined and carefully ground.

**MOTOR IGNITION.** The new Bosch *double* system of ignition, using eight plugs, with Bosch high tension magneto and Exide sparking battery and timer with non-vibrating coil, allows for using the battery system or the magneto system, or both systems in common. Two absolutely independent sources of current and two absolutely independent means of distribution.

**MOTOR LUBRICATION** Motor lubrication is positive and complete. A pressure pump of 15 pounds capacity forces oil from the crank case reservoir through a conduit cast within the motor section, with leads to all main and secondary bearings. The motor has just as perfect a splash system as any motor depending upon splash, and a positive circulation of oil as well.

**MOTOR COOLING.** A modish cooler of high peak and current fashion cools the circulating water, aided by a powerful ball bearing eccentrically mounted fan with aluminum blades, and water is circulated by an efficient shaft driven centrifugal pump with spun brass connections of graduated diameters.

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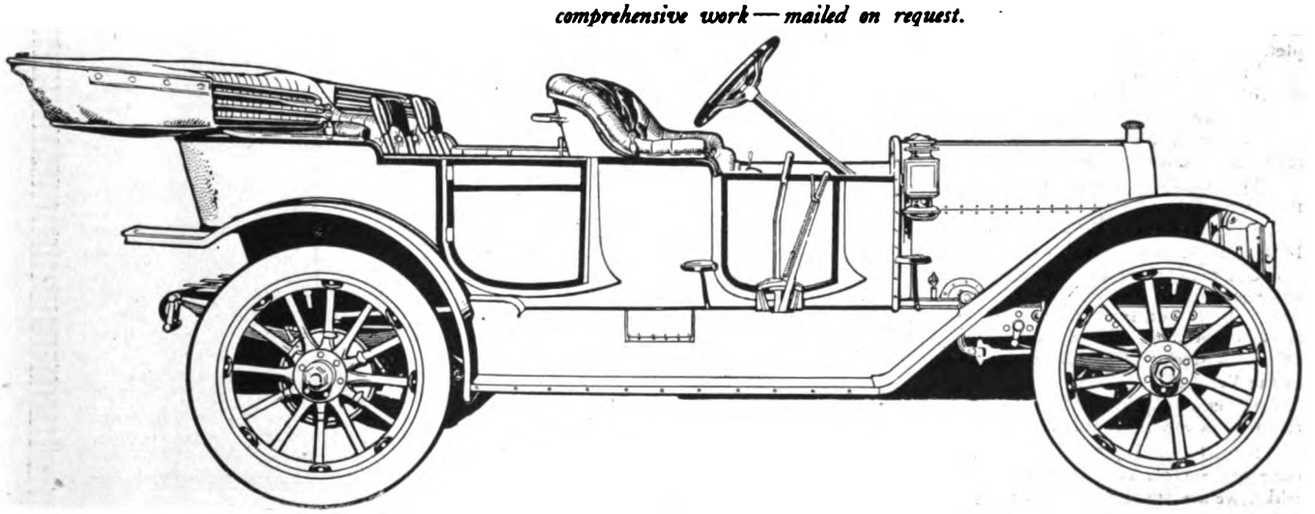
# new models

| | |
|---|---|
| CLUTCH. | The clutch is of the flywheel cone type faced with a commercial packing obtainable anywhere, and being an admixture of asbestos and other elements that *cannot burn out.* It finds and maintains its own seat, while spring actuated protruding shoes first accept the drive. |
| TRANS-MISSION. | Transmission is of the selective sliding gear type, with "Hess-Bright" ball bearings. Drive shaft universal joints are of new type and encased. |
| AXLES. | The front axle is double jaw type "I" beam section, and rear axle is of full floating design without transverse strains. |
| MARK 85 BODIES. | Most attractive are the Columbia bodies for 1911 season. All are vestibuled. There is a vestibuled four-passenger close coupled roadster, a six-passenger vestibuled roadster, and a seven-passenger vestibuled touring car. Vestibuled limousines and landaulets of seven-passenger capacity are supplied. |
| MARK 85 PRICES. | The four-passenger roadster is $3,300; six-passenger roadster $3,400; seven-passenger touring car $3,500; the Limousine $4,800, and Landaulet $4,900. |

## Mark 48 lot 5 for 1911

Mark 48 Columbia cars were first introduced in 1906, and in years since have been increased in power, efficiency and performance. The model for 1911 is known as Mark 48 lot 5. Numerous small refinements have been made for the new season productions, but the principal change is in body designs, all bodies now being of the vestibule type. The prices remain the same as in other years, and are: five-passenger vestibuled touring car and four-passenger vestibuled roadster $2,750; Limousine and Landaulet town cars $3,850.

*The new catalog of 1911 Columbia cars — a very comprehensive work — mailed on request.*



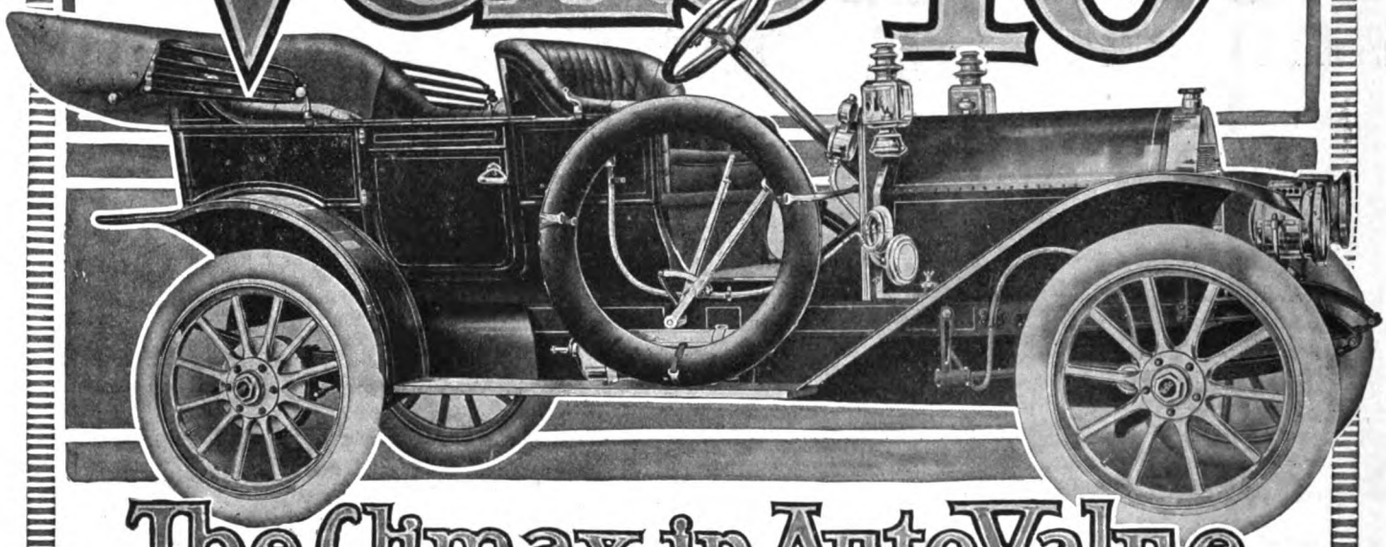
# The Columbia Motor Car Co.

**Hartford, Connecticut**

Licensed under Selden patent.

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# Velie 40



## The Climax in Auto Value

HERE is the one car that combines at a reasonable price every advantage found in cars ranging from $2,500 to $5,000 The Velie 40 is the result of a determination to produce the best possible car at the lowest possible price.

This purpose has been accomplished by reason of extensive manufacturing experience, unlimited capital and the ability to combine purchases for all the affiliated concerns with which the men behind the Velie 40 are connected.

The Velie 40 is made—*not assembled*—by our own workmen in our own factory which is one of the largest, most completely equipped in America.

We produce every important part that goes into the Velie 40 with exception of transmission, steering gear and axles. We would make these if we could improve our car by doing so.

We use Brown-Lipe transmission—the best that mechanical skill can produce or money can buy.

We use the Gemmer steering gear—an exact duplicate of that in the famous Fiat.

We use Timken Roller Bearing axles of special Velie design. Manufacturers who make their own axles cannot excel these.

Our rear axles are chrome nickel steel of a strength which engineers tell us would stand 60 h. p. stress instead of 40 h. p. You will not find such axles on any other $1800 car. At a conservative estimate, 50% of auto troubles are due to defective rear axles. Therefore, 50% of average trouble is absolutely avoided in the Velie 40.

We challenge comparison between the finish of the Velie 40 and that of any car made, regardless of price.

No detail is slighted. This was the policy that brought fame and success to the Deere implement organizations with which we are affiliated. It is bringing fame and success to the Velie 40 likewise

### SPECIFICATIONS FOR 1911

MOTOR—Bore 4½ in.; stroke 5¼ in., 4 cylinder, 4 cycle L type; cylinders cast in pairs with integral water jackets, crank shaft offset ⅜ of an inch. Latest improved foreign design of large bearing roller tappets.

TRANSMISSION—Brown-Lipe selective sliding gear, three speeds forward and one reverse, mounted on four sets of Timken short series roller bearings, designed and manufactured especially for us. Gears 3½ per cent nickel steel.

DIFFERENTIAL—Brown-Lipe bevel gear on Timken roller bearings. Gears of Chrome Nickel steel.

FRONT AXLE—I beam single piece, heat treated drop forging, of Timken manufacture. Wheels on Timken roller bearings.

REAR AXLE—Timken full floating type, double rod construction.

CLUTCH—Dry disc. All parts readily accessible, and replacement costs a minimum.

IGNITION—Splitdorf magneto, with non-vibrating coil as the primary and Atwater Kent for secondary.

LUBRICATION—By gear pump; gear driven. Our patent sight feed is a feature found on no other car. All moving parts and bearings are provided with compression cups or spring oilers.

BRAKES—Double contracting foot brakes and double expanding hand brakes.

SPRINGS—Front semi-eliptic, 38 in. long, 2 in. wide. Rear ¾ in. scroll; 46 in. long and 2 in. wide.

RADIATOR—Mercedes type with hard rubber filler cap,

WHEEL BASE—115 inches. Gear ratio 3 to 1; 3½ to 1.

WHEELS—34 in. artillery type, selected second growth hickory.

TIRES—Hartford or Firestone, 34x4 in. on Hartford Q.D. rims.

STEERING GEARS—Of Gemmer Manufacture.

STEERING WHEEL—Hard Rubber with corrugated finger grips: 17 inches in diameter.

COOLING—By gear driven centrifugal pump.

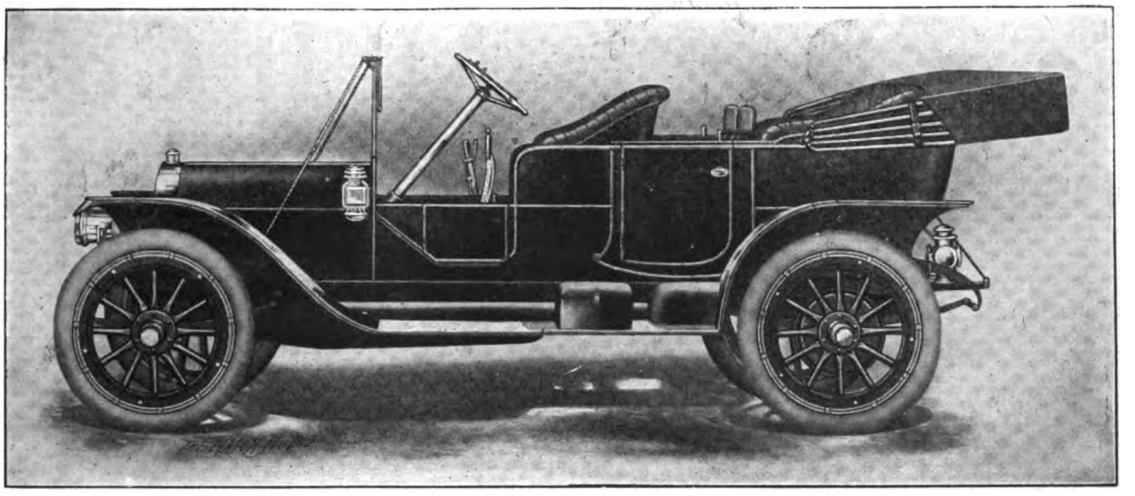
### A SPLENDID PROPOSITION TO DEALERS

**Write at once for particulars of our offer to agents. If you knew as much about the Velie 40 as we do, you would not handle any other car. Let us give you facts. Get in touch with us today.**

## VELIE MOTOR VEHICLE CO.

MOLINE, ILLINOIS

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1911 Model R 40 H. P. Touring Car. Price Equipped $3300.00

QUALITY Knox QUALITY

# Quality Is What You Get When You Buy a Knox

**RELIABLE MOTOR CARS MANUFACTURED BY RELIABLE MAKERS**

¶ KNOX motor cars are the result of years of experience in manufacturing high grade cars exclusively and KNOX water cooled types have many times shown the superiority of up-to-date construction ever since their introduction.

¶ KNOX types and features of construction are not copied from other makes, but are designed and manufactured in a completely equipped factory and under the supervision of a competent engineering department.

**Knox Features are Unit Power Plant, Three Point Suspension, Cylinders Made with Detachable Heads and Valves in the Head, De Dion Lubricating System, Three Plate Clutch, Straight Line Shaft Drive, Etc.**

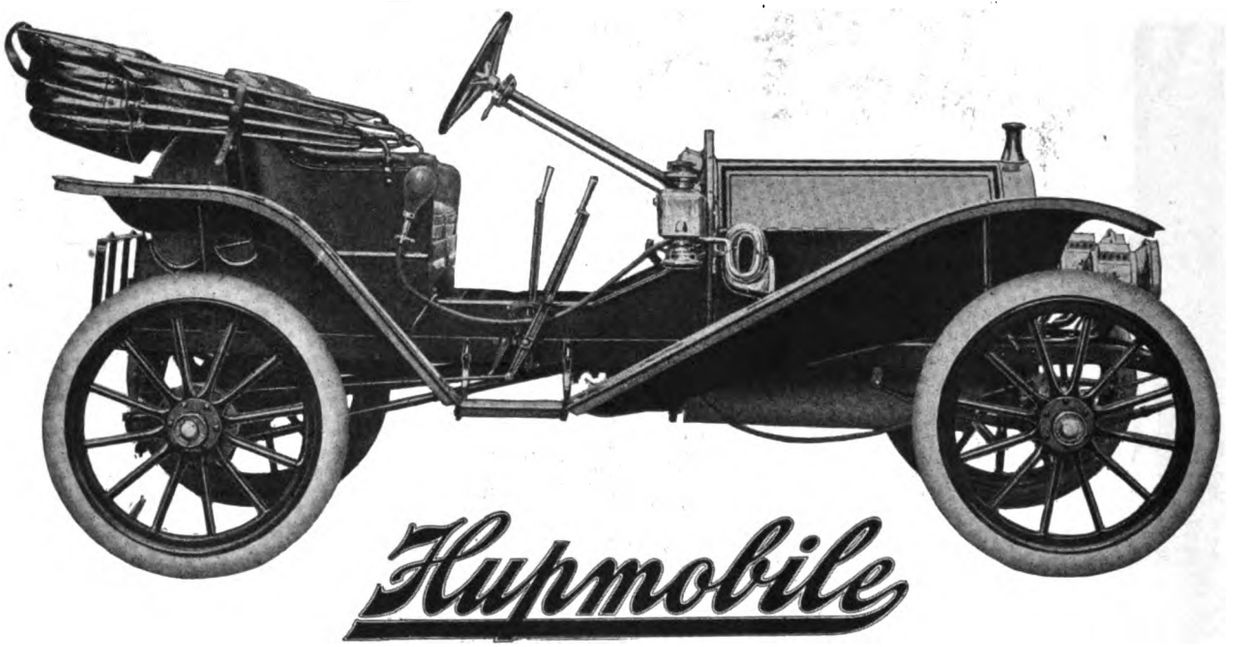
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## KNOX AUTOMOBILE CO., Springfield, Mass.

Licensed under Selden patent.

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# 25c. a Day Is All It Costs Most People to Run This Car




**4 cylinders; 20 H. P.; Sliding gears; Bosch magneto.**

**$750**

**Price F. O. B. Detroit, including three oil lamps, tools and horn. Top, gas lamps, tank or generator, speedometer and trunk rack extra.**

There are 7,500 Hupmobile owners in America.

The great majority keep their cars at home and run them for about 25c. a day.

That means everything—oil, gasoline, repairs—everything.

You may moralize all you like about the expense of keeping automobiles—but you will not find a Hupmobile owner who will admit that his car is an expense at all.

At 25c. a day he maintains that his Hupmobile is cheaper than street cars—infinitely less expensive than a horse.

Cheaper because it covers so much more ground.

An economy because it enables the owner to do two or three times as much work and still have leisure.

The Hupmobile is just the right size to save money in first cost; and it saves money—because it is just the right size—on tires, gasoline and repairs.

And isn't it the handsomest, smartest car of its type on the market?

At least 100,000 more people can afford to own a Hupmobile—in the sense that it would prove itself an actual investment in time saved and the pleasure it would bring.

Chat with a Hupmobile owner (doubtless your acquaintances include one or more). Note his enthusiastic talk. Then look up the Hupmobile dealer; or write for the catalog.

## HUPP MOTOR CAR CO., Dept. K, Detroit, Michigan

Licensed under Selden patent.


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# The Munsey Historic Tour

**from start to finish was just another**

# SWEEPING VICTORY

**for**

# "Firestone"

# Tires and Demountable Rims

**Eight cars were equipped with Firestone Tires—a big lead over all competition. Four other cars had Firestone Quick-detachable Demountable Rims—the only demountables in the Tour.**

Firestone service was the best beyond all comparison. Not one Firestone tire gave out, not one Firestone casing was replaced, during all the terrific 1500-mile grind. Only six punctures all told.

**Thus the cleanest and most decisive tire victory of the year goes to Firestone Tires.**

## THE FIRESTONE TIRE & RUBBER COMPANY

"America's largest exclusive tire makers"

**Akron, Ohio**

Branches, agencies and dealers everywhere


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# WEED CHAIN

THIS decided reduction in price has been made possible because of the rapid increase in our business, enlargement of plant, introduction of new methods and machinery and the production of chains in enormous quantities—the benefit of these economies we give to the motoring public. The quality of Weed Chains remains the same—the best that money can buy.

| American Sizes. | Prices. | American Sizes. | Prices. |
|---|---|---|---|
| 28 x 2 1-2 | $3.50 | 30 x 4 1-2 | $6.50 |
| 30 x 2 1-2 | 3.75 | 32 x 4 1-2 | 7.00 |
| 28 x 3 | 4.00 | 34 x 4 1-2 | 7.50 |
| 30 x 3 | 4.50 | 35 x 4 1-2 | 8.00 |
| 32 x 3 | 5.00 | 36 x 4 1-2 | 8.00 |
| 34 x 3 | 5.50 | 37 x 4 1-2 | 8.75 |
| 36 x 3 | 6.00 | 38 x 4 1-2 | 9.50 |
| 28 x 3 1-2 | 4.50 | 40 x 4 1-2 | 11.00 |
| 30 x 3 1-2 | 5.00 | 42 x 4 1-2 | 12.50 |
| 32 x 3 1-2 | 5.50 | 34 x 5 | 8.50 |
| 34 x 3 1-2 | 6.00 | 35 x 5 | 9.00 |
| 36 x 3 1-2 | 6.50 | 36 x 5 | 9.00 |
| 30 x 4 | 5.50 | 37 x 5 | 9.75 |
| 31 x 4 | 6.00 | 38 x 5 | 10.50 |
| 32 x 4 | 6.00 | 39 x 5 | 11.25 |
| 33 x 4 | 6.50 | 40 x 5 | 12.00 |
| 34 x 4 | 7.00 | 36 x 5 1-2 | 12.00 |
| 35 x 4 | 7.50 | 37 x 5 1-2 | 13.00 |
| 36 x 4 | 7.50 | 38 x 5 1-2 | 14.00 |
| 37 x 4 | 8.00 | 38 x 6 | 14.00 |
| 40 x 4 | 10.00 | 40 x 6 | 15.00 |

## CROSS CHAINS



| | Each. | | Each. |
|---|---|---|---|
| 2½ | 5c. | 4½ | 10c. |
| 3 | 6c. | 5 | 12c. |
| 3½ | 8c. | 5½ | 15c. |
| 4 | 9c. | 6 | 18c. |

## ADJUSTERS

| | |
|---|---|
| 28-30, 32-34, 36 | $1.00 per pair. |
| 37-38, 40-42 | $1.50 per pair. |

## Weed Chain Tire Grip Co.

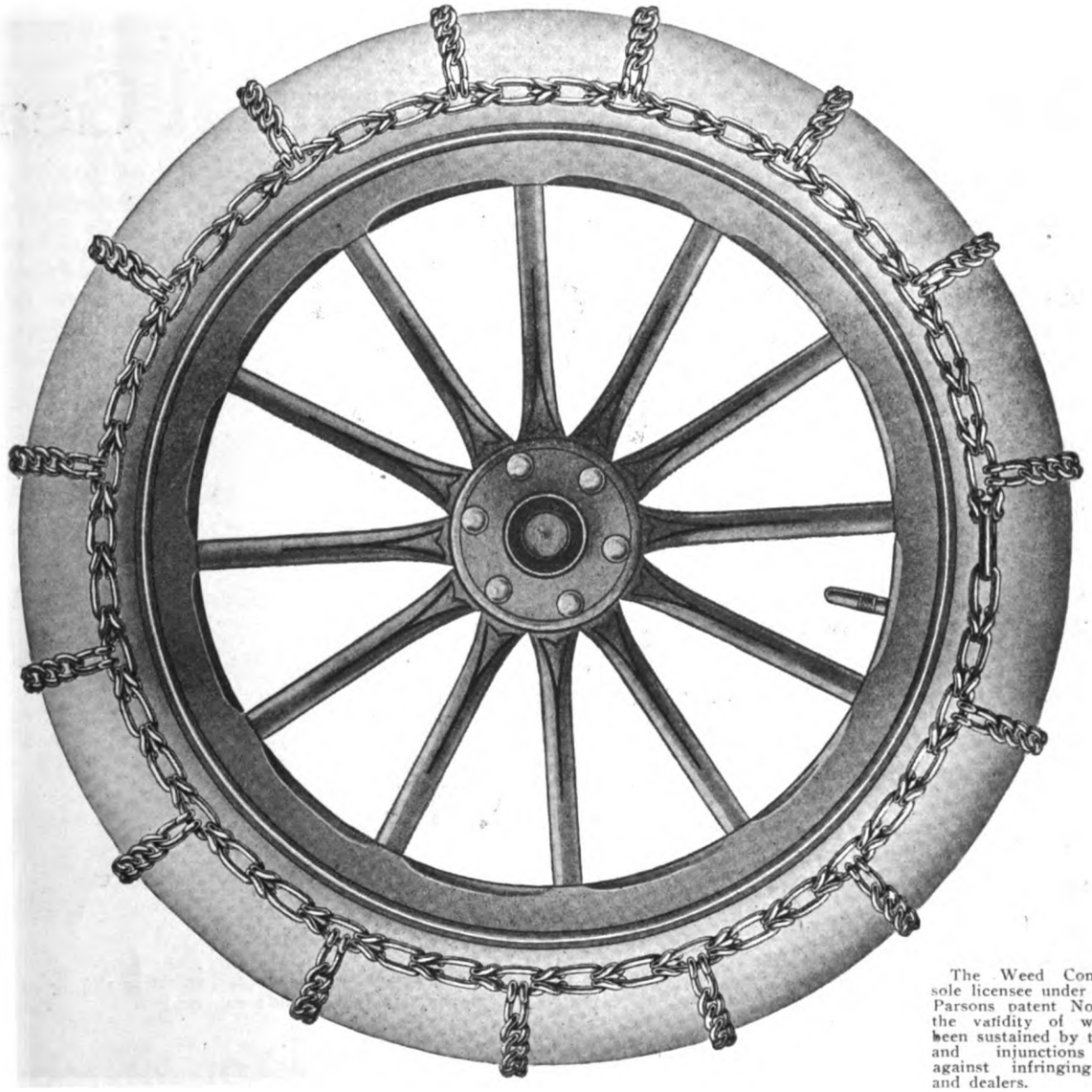
**28 Moore Street, New York**

**UNITED MANUFACTURERS, Sole Distributors**

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# Prices Reduced

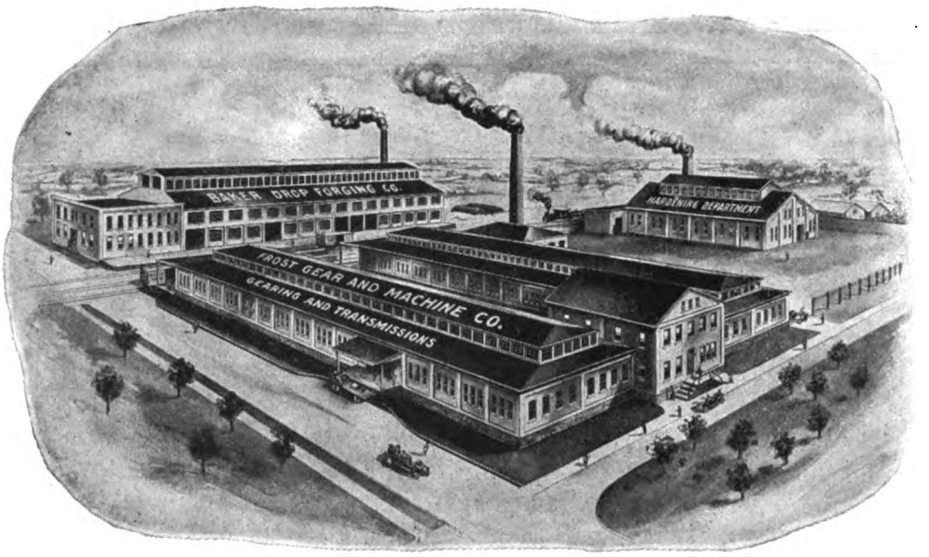
BUY your Weed Chains today. You'll need them. They positively prevent skidding—they are an absolute necessity—Weeds should be part of your equipment—Weed Chains have Brass Plated Cross Chains. See that the name "WEED" is stamped in the hooks.



The Weed Company is sole licensee under the basic Parsons patent No. 723299, the validity of which has been sustained by the courts and injunctions issued against infringing makers and dealers.

*Patented March 24, 1903. August 23, 1904*

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# Here are produced the Transmission and Differential Gears

## which are giving satisfactory service on a number of America's best automobiles.

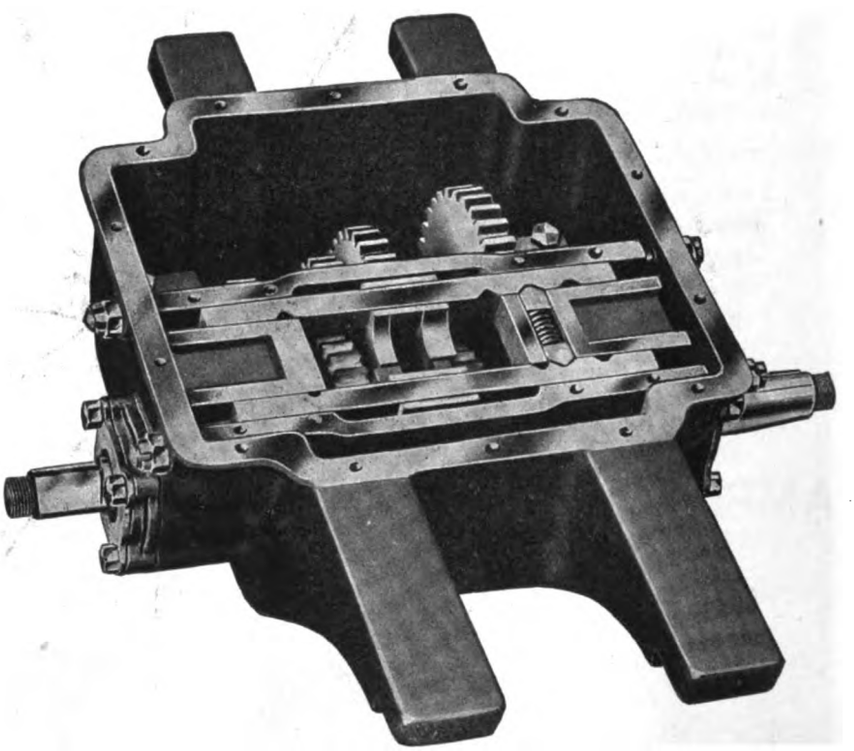
The automobile industry knows Frost gears best by reason of their high quality, their long life and the absence of trouble during their period of usefulness.

That is the reputation which is enriched and maintained by every set of transmission and differential gears that leaves the Frost plant.

Frost gears are cut from steel especially hardened after our own processes, on our designs or those furnished by the car manufacturer.

**The Frost plant specializes particularly on differential and rear axle bevel drive gears.**

A request for full information will bring you details that will help you understand why many of the biggest and oldest automobile builders are using Frost gears.



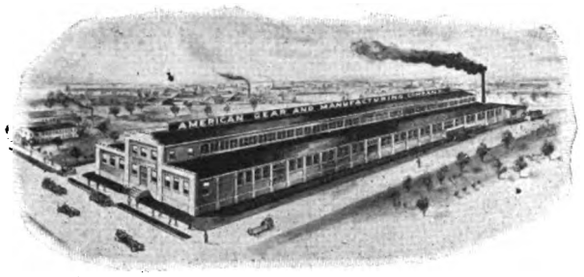
**25-30 H. P., Frost three speed and reverse, selective sliding gear transmission (cover plate removed)**

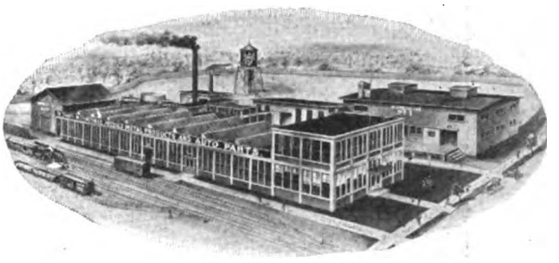
## FROST GEAR & MACHINE CO., Jackson, Michigan

**SALES AGENTS:**

## AMERICAN DISTRIBUTING CO., 1030 S. Park St., Jackson, Michigan

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# Why the Industry Recognizes Jackson's Lead as a Parts-Producing Center

With an output that totals annually the sum of $5,000,000 and facilities in five large plants for the unhurried production of parts, the automobile industry justly regards Jackson as a leading supply center.

Makers of the costliest cars—cars of the highest standing and quality—buy parts from these Jackson manufacturers:

**Frost Gear & Machine Company**
**Sparks-Withington Company**
**American Gear & Manufacturing Company**
**Hayes Wheel Company**
**Lewis Spring & Axle Company**

Manufacturing:

**Front and Rear Axles**
**Wheels, Springs**
**Transmission Gear Sets**
**Steering and Side Lever Control Sets**
**Fans and other Pressed Metal Parts**
**Drop Forgings**

The grouping in Jackson of these plants—and the centralization of their sales in the American Distributing Company—offers certain tangible advantages, the value of which has become generally recognized.

For instance, none of the five manufacturers in Jackson, need turn any of his energies or facilities aside from manufacturing.

All orders are placed through the single sales organization, and by it distributed among the plants.

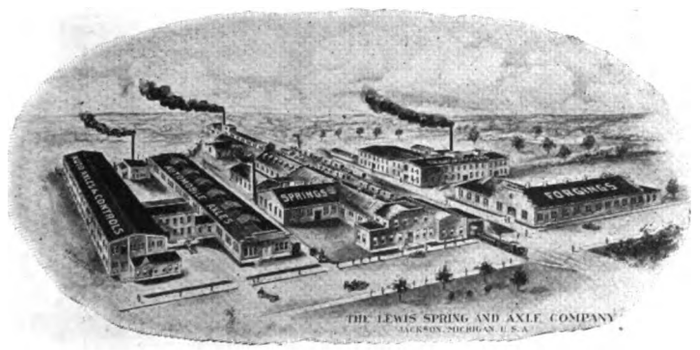
This organization is constantly on the alert in the interest of the parts buyers—seeing that shipments are made as specified; making the most in the saving of time and money, of the purchase of closely related parts.

Thus the automobile manufacturer can and does buy parts in Jackson, enjoying all the advantages of time and money saved, through the agency of five of the largest parts makers in the country and the only organization equipped as this for the giving of actual service.

## AMERICAN DISTRIBUTING CO., 1030 S. Park Street, Jackson, Mich.

**Sales Agents for**

LEWIS SPRING & AXLE CO. SPARKS-WITHINGTON CO. HAYES WHEEL CO.
FROST GEAR & MACHINE CO. AMERICAN GEAR & MANUFACTURING CO.



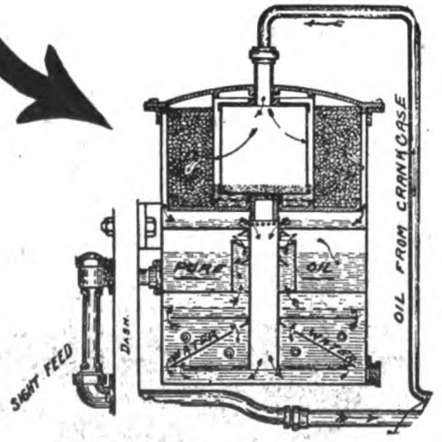




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# H·F·M
## AUTOMATIC OIL FILTERING & LUBRICATING SYSTEM

**The First Radical and Distinct Improvement in Automobile Lubricating Methods Since the Industry Began.**



Showing Filtering Process

THE MOTOR is the life of the car; and proper lubrication greatly prolongs the life of the motor. Proper lubrication depends not so much on the original quality of the oil, as on its condition after a few days' use. The finest lubricating oil in the world is worthless when mixed with dust and dirt and allowed to simply burn itself to death in a lubricating system where the same burned out, dirty oil does continuous duty from cylinders to bearings and from bearings to cylinders.

**HOT, DIRTY, GRITTY OIL IS NOT A LUBRICANT.**

CLEAN, COOL OIL, ALL THE TIME, makes your motor hum like a top and keeps it in perfect condition, years after the poorly lubricated motor has been relegated to the scrap heap.

The H. F. M. SYSTEM automatically removes all "trouble-breeding" foreign matter from the lubricating oil. PERFECTLY SIMPLE AND TROUBLE PROOF, it thoroly filters the oil, then washes it thro cool water until it is perfectly clean before it is returned to the crank case to perform its lubricating duties and repeat the operation continuously.

Backed by 20 years' experience, and thoroly covered by strong patents which we control.

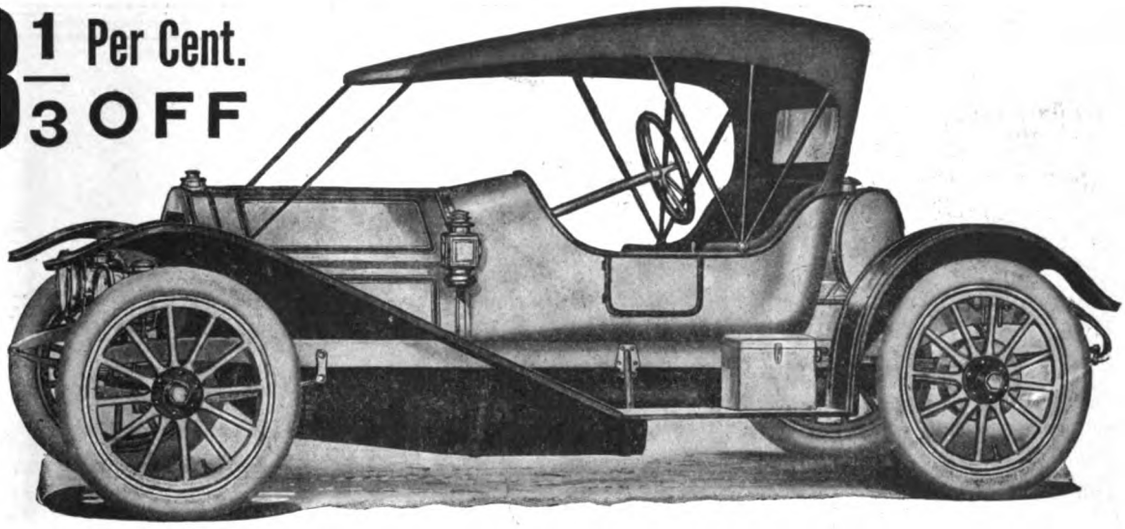
The H. F. M. SYSTEM claims your attention now and sooner or later you must adopt it.

Write at once for further information.

**THE AL-TON MOTOR ACCESSORY COMPANY**
**East South Street** **Akron, Ohio**


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# 33 1/3 Per Cent. OFF

1/3  1/3

Model "Q", List $1000

## The Car Surprise of the Year

# De TAMBLE

Listed one-third below other cars of the same value the De Tamble product has come to stay. Could you see the cars we are sure all doubt would quickly be replaced by confidence. The value is there—the specifications our guarantee ; and if that is not sufficient evidence write or wire us for additional data. We do not hope to realize 1000% dividends, for it is absolutely impossible to give such wonderful value at such remarkably low lists and expect more than fair returns on the investment, but we do expect to and will build a reputation that will be lasting. To good live agents we are offering terms that are not to be equalled, and solicit correspondence for the agency of the limited amount of territory which is still open for the coming season. A letter or wire will quickly bring complete data regarding our agency proposition.

**SPECIFICATIONS:**

MOTOR—4-cylinder, 4¼ x 4½, 36 H. P., cylinders cast in pairs of the L type, with intake and exhaust manifolds on left hand side and magneto and water pump on right hand side. Motor, clutch and transmission is one unit on four point suspension. Crank shaft carried on three large bearings of Parson's white metal. Lower half of crank case removable. Crank case, fly wheel and transmission housing of aluminum.

OILING—Self contained by force pump to constant level, overflowing to reservoir in crank case.

IGNITION—Dual system, Remy H. T. Magneto; also dry cells.

CARBURETOR—Model L Schebler.

COOLING SYSTEM—Vertical tube type radiator, circulation being maintained by centrifugal pump.

CLUTCH—Multiple disc clutch enclosed in fly wheel.

TRANSMISSION—Selective type sliding gear, 3 speeds forward and reverse, working on annular ball bearings.

CONTROL—Gear shift and emergency brake on side levers; clutch in left pedal and primary brakes in right pedal.

STEERING GEAR—Worm and gear with 18-in. wheel, spark and throttle levers on top of wheel.

BRAKES—Foot brake contracting on rear wheels, emergency brake internal expanding in rear wheels.

FRAME—Pressed steel; kick-up over rear axle with narrow front.

FRONT AXLE—One piece drop forged "I" beam with ball bearings.

REAR AXLE—Semi-floating type with large ball bearings. The differential housing being in one piece with large round cap permits of inspection or adjustment of bearings, or removal of the differential without taking the axle apart.

DRIVE—Shaft enclosed.

SPRINGS—Half elliptic front; ¼ scroll elliptic rear.

TIRES—34 in. by 3½ in.

WHEEL BASE—112 inches, standard tread.

BODY—Two passenger Roadster, Torpedo type, all metal body with no seams.

UPHOLSTERING—Roadster, smooth leather; Touring, tufted leather; with best grade curled hair.

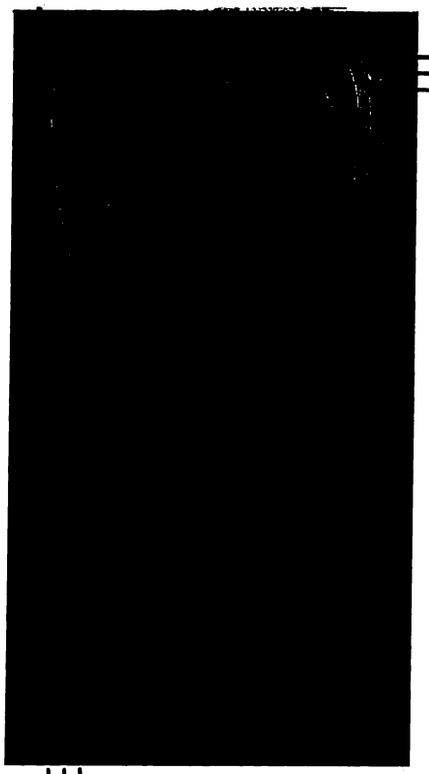
EQUIPMENT—Full lamp equipment and generator; horn, tire pump and full set tools, including jack, in pressed steel tool box on running board.

TOURING MODELS—5 passenger standard touring $1150; fore door type $1200.

EXTRAS—Top and wind shield.

## THE De TAMBLE MOTORS CO., Anderson, Indiana


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# Every Elgin Trophy Won by a Bosch-Equipped Car

## Elgin Trophy Race, 305.3 Miles

| Bosch-Equipped Cars | Drivers | |
|---|---|---|
| Lozier | Mulford | Won Trophy |
| National | Livingston | Second |
| National | Greiner | Third |
| Simplex | Robertson | Fourth |

## Illinois Trophy Race, 203.35 Miles

| | | |
|---|---|---|
| National | Livingston | Won Trophy |
| Fal Car | Pearce | Second |
| Marmon | Dawson | Third |

## Kane County Trophy, 169.46 Miles

| | | |
|---|---|---|
| Marmon | Buck | Won Trophy |
| Marmon | Heinemann | Third |

## Fox River Trophy Race, 135.57 Miles

| | | |
|---|---|---|
| Benz | Hearne | Won Trophy |

**Every one of these cars is equipped with a Bosch Magneto**

**Another Bosch-Equipped World's Record—Stearns Does 1253 Miles in 24 Hours.**

At the Brighton Beach Race, August 19th-20th, the Bosch-equipped Stearns won the race and established a new world's record for the 24 Hours. Matheson second and Houpt third also used Bosch Ignition.

**Still Another Clean Sweep—Brighton Beach Races, August 13, a Bosch-Equipped Triumph.**

Every one of the eight races at the Brighton Beach Matinee Races of August 13th was won by a car equipped with a Bosch Magneto. The victorious Bosch-equipped cars were: Ford; S.P.O.; Fiat; S.P.O.; Simplex; National; Fiat; S.P.O.

**BOSCH MAGNETO CO., 223-225 West 46th St., New York**

Chicago Branch: 119-121 East 24th Street
Detroit Branch: 878 Woodward Avenue
San Francisco Branch: 357 Van Ness Avenue


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# THE REGAL LINE

**REGAL "30"**

**FORE-DOOR AND OPEN STYLES**

When it comes to buying a family touring car, the great points to consider are Comfort, Reliability and Power. Some cars are comfortable, but haven't power enough; other cars are both powerful and comfortable, but are not Reliable. The Regal "30" combines Comfort, Reliability and Power; that's why it is the ideal family car.

To prove Regal comfort, ride in a Regal. To find out about its power, try it on any hill. Ten thousand users say it has power and to spare; we say so, too, but TRY it. The whole world knows about Regal endurance. No car has ever been put through severer tests than those to which the famous Regal "Plugger" has been subjected. Over 29,000 miles of American roads in practically every state in the Union have been covered by this wonderful, sturdy car, without repairs or replacements. Doesn't that prove Reliability?

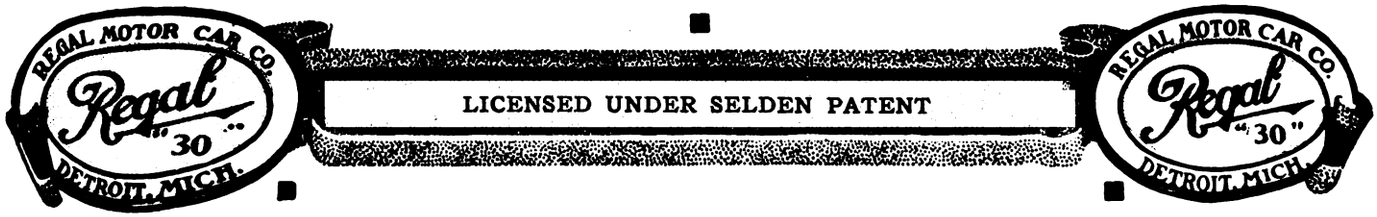
The Regal "30"—price $1,250—is now offered for its fourth year. In general it preserves the same mechanical principles as the first Regal "30," but everywhere—in every detail—it has been refined and refined again until it is almost perfect. Nowhere can you find a five-passenger car that will give you better service and cost less to operate. Made in both fore-door and open styles; both priced at $1,250, including Magneto and regular standard equipment.

**Regal "20" $ 900**
**Regal "30" $1250**
**Regal "40" $1750**

**Before you buy ANY car, see the "Regal"—the pioneer of low prices and honest values. Latest models are now ready.**

**DEALERS—Write for 1911 Proposition.**

## Regal Motor Car Company, Detroit




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## LAMPS IN NICKEL OR IN BLACK

are the best for some cars, to match or support the general scheme of the finish or a desired "effect."

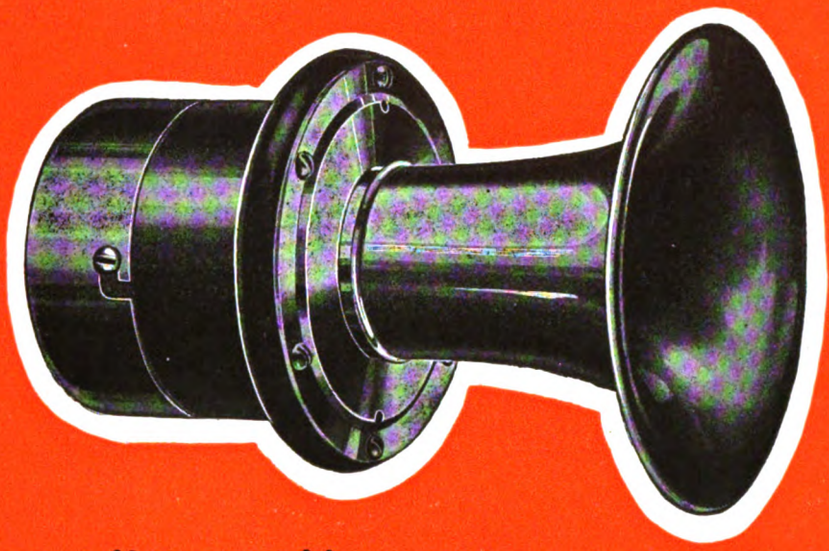
# Gray & Davis Lamps

long have been supplied in either black or nickel finish, at a slight advance over the polished brass. Our experience makes it possible to supply a black that stays black and a nickel finish that stays nickeled.

GRAY & DAVIS
Amesbury, Massachusetts


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# A NEW MONOPLEX TYPE M ELECTRIC HORN

$12  $12

The MONOPLEX Type "M" has been produced to meet the demand for a high-class electric horn of smaller size than the regular Monoplex, and which combines a forceful tone and substantial construction with a pleasing appearance and a low price.

Fitted with our improved vibrating system (which is now also supplied in our larger Monoplex), vanadium steel diaphragm and short, seamless brass projector.

*An efficient and powerful signal for the man who does not want a large horn on his car.*

IT CONSUMES LITTLE CURRENT AND MAY BE OPERATED BY SIX DRY CELLS OR AN EIGHT-VOLT STORAGE BATTERY.

Complete with push-button and cord—$12.00. Circular on request. Dealers should send for sample.

## ATWATER KENT MFG. WORKS

33 North Sixth Street, PHILADELPHIA, PA.

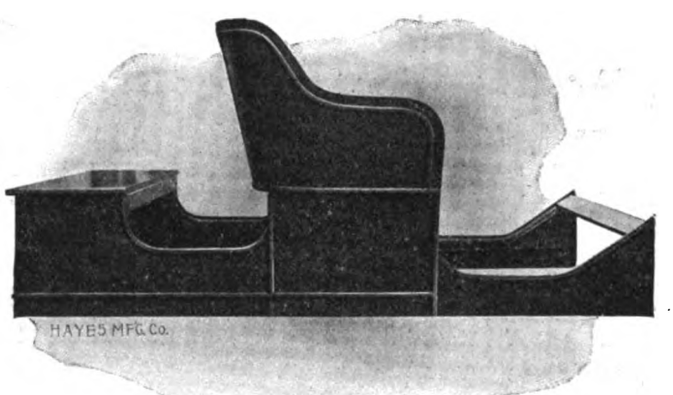

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# THE THREE GREAT LINKS

# Our Product
# Our Factories Our Name

OUR EQUIPMENT IS VERY COMPLETE FOR THE MANUFACTURE OF:

Metal Bodies
Fenders
Fender Irons
Hoods
Motor Pans
Tanks
Dashes
Tool and Battery Boxes
Sheet Metal Parts and Forgings




TWO LARGE PLANTS ENTIRELY SEPARATE, GIVING PROTECTION IN CASE OF FIRE. CAPACITY FOR PARTS FOR 5000 CARS PER MONTH.

## HAYES MANUFACTURING CO.
DETROIT, MICHIGAN


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# QUALITY AUTOMOBILES

## WILL EQUIP WITH THE

# Warner AUTO-METER for 1911

**Makers who feel a personal responsibility for the reliability and dependability of the accessories used on their cars are either equipping with the Warner Auto-Meter for 1911 or are recommending it as an EXTRA because of its supreme excellence.**

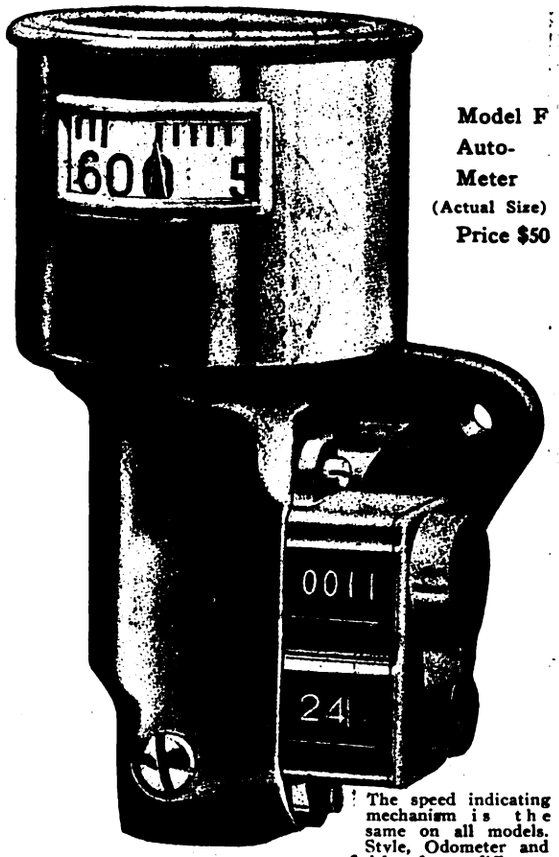
Many makers have gone so far as to attach Auto-Meter driving gears at their factories so as to be able to attach an Auto-Meter in a few minutes when a customer specifies it.

Every automobile manufacturer of note in the United States acknowledges the superiority of the Warner Auto-Meter by using bought-and-paid-for Warners on his personal cars, on his racing machines, and on every car where an **accurate** record is wanted, and where "within a few miles per hour of right" is not close enough.

Some of these makers offer other instruments for sale through their branches, because—as they say themselves—they fear the buyer of a popular-priced car will not appreciate or cannot afford the Auto-Meter, as it costs from three to five times as much as other "speed indicators."

Yet, even so, the Auto-Meter is by far the cheapest if you figure the price by **miles of travel** or **years of service.** The first Auto-Meters made, over eight years old—are as sturdy, reliable and accurate as when new.

If the maker of your favorite car does not equip with the Auto-Meter, it will be wise judgment on your part to pay for it—or **pay the difference,** if you can afford Quality and care for the trouble-proof satisfaction which goes with it.



Model F Auto-Meter (Actual Size) Price $50

The speed indicating mechanism is the same on all models. Style, Odometer and finish only are different.

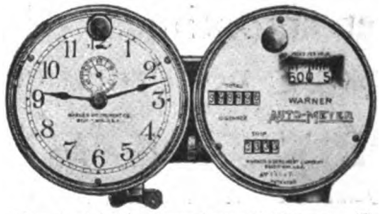


### Model K

This represents the open-face type of Auto-Meter with Warner large-figure Odometer. Season, 100,000 miles and repeat; trip, 1,000 miles and repeat. It is the most popular model and by far the best seller. Price, **$75**

Same as above, but with Chelsea Auto Clock (MODEL M). Price . . . . . **$125**

### Model O—"The Twins"



This is the same instrument as Models K and M, with large Chelsea Auto Clock.

Has the Warner large-figure Odometer. The ultimate in high-class instrument making. Price, **$145**

**Any of the above designs can be secured with 100-mile speed dial at a slight advance in price.**

## Warner Instrument Company

**992 Wheeler Ave., BELOIT, WIS.**

**BRANCHES**

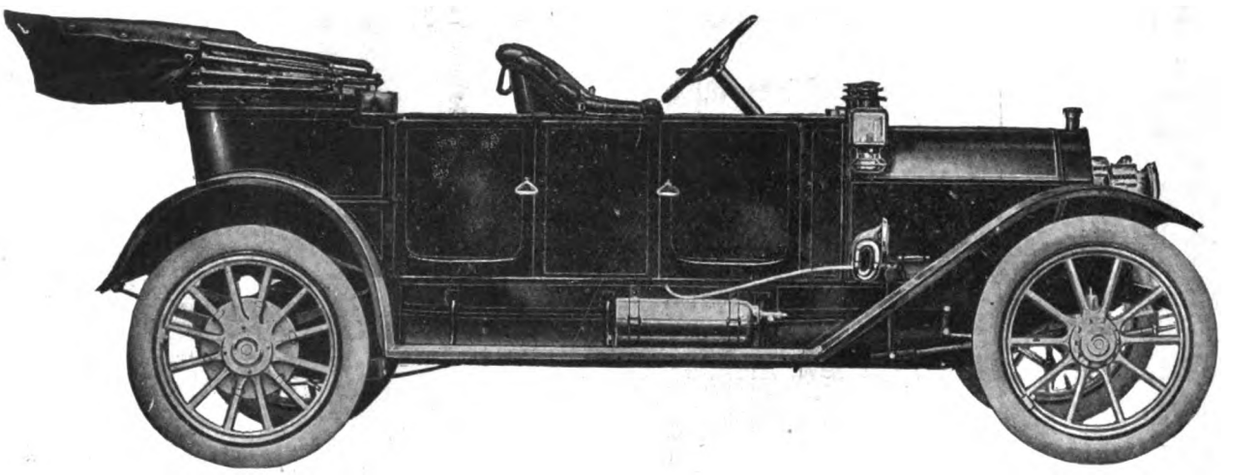
ATLANTA, 116 Edgewood Ave.
BOSTON, 925 Boylston St.
BUFFALO, 720 Main St.
CHICAGO, 2420 Michigan Ave.
CINCINNATI, 807 Main St.
CLEVELAND, 2062 Euclid Ave.
DENVER, 1518 Broadway
DETROIT, 870 Woodward Ave.
INDIANAPOLIS, 330-331 N. Illinois St.
KANSAS CITY, 1613 Grand Ave.
LOS ANGELES, 748 S. Olive St.
NEW YORK, 1902 Broadway
PHILADELPHIA, 302 N. Broad St.
PITTSBURG, 5940 Kirkwood St.
PORTLAND, ORE., 14 N. Seventh St.
SAN FRANCISCO, 36-38 Van Ness Ave.
SEATTLE, 611 E. Pike St.
ST. LOUIS, 3923 Olive St.

(92)

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# THE MARMON

"The Easiest Riding Car in The World"



# WINS AGAIN

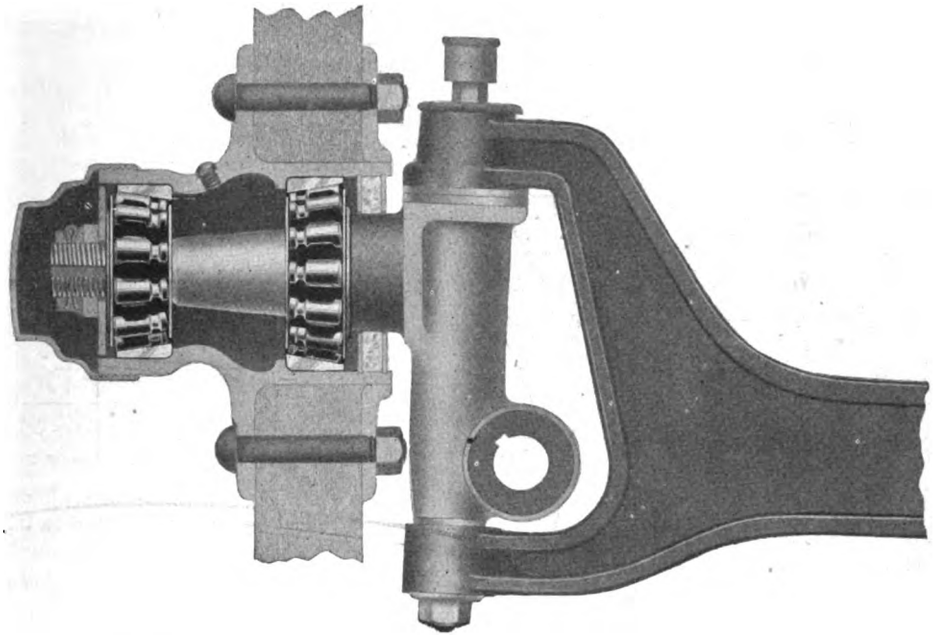
## This Time At Elgin

Following up its unparalleled string of victories which include the Wheeler & Schebler, the Cobe, the Remy, the Vanderbilt, Wheatley Hills, the Atlanta Speedway Trophies and other notable events, the victorious Marmon, champion of the 1910 season, captured the Kane County Trophy in the Elgin races Friday; another Marmon finishing a close third in the same event, and still another third in the Illinois Trophy event Friday. Three started, three finished, again demonstrating Marmon stability and consistency of performance. Dependability in the hands of the private owner is its reputation. In classy appearance and quiet smoothness of operation the Marmon fully equals its amazing performance on road and track.

**NORDYKE & MARMON CO.,** (Estab. 1851) **Indianapolis, Ind.**

(Sixty years of successful manufacturing) Licensed under Selden Patent


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# Timken Roller Bearings

¶ The above cut shows Timken Short Series Roller Bearings installed in a Front Hub. It will be noticed that on account of the tapered construction of our bearings they are peculiarly adapted to this particular class of wheel work, since they are capable of carrying, not only the dead weight of the car, but also capable of taking care of the great end thrust which is present in all automobile wheel service. This is one of the important and exclusive features of the Timken Roller Bearing, namely, that it can stand as much end thrust as radial load.

¶ All bearings wear in time, and as a consequence, continuous end thrust on wheel application causes such wear that in a given time, or a certain number of miles of service, it is necessary to replace those bearings of the annular and other types in which the wear cannot be taken up.

THE TIMKEN ROLLER BEARING CO.
Canton, Ohio

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# Marion-Overland
# Prince of the Line

**The finest model of the world's most popular car is surely all that a car can be. If you think that a car to be great must be costly, you should see our prize model—the Marion-Overland—selling for $1,850.**

## Our Leading Car

The Marion-Overland is the pride of our line. We sell more of the $1,000 Overland, because most buyers find that it meets their requirements. But some men want extremes in power and style and speed. They want them particularly when they can be had on the Overland basis of price. Such men should see this car.

We bought the Marion a year ago because it controlled features which no other car possessed. One is a silent transmission which never gets out of alignment. Another is gears which never grind. Another is a steering gear protected from accident. Another is a wonderful brake system, powerful and safe and protected.

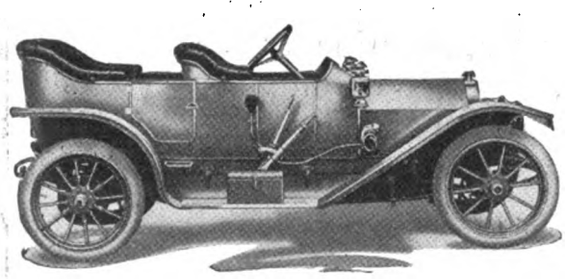
Then we brought the car to its present perfection and made it the prince of our line.

The Marion-Overland has all the power and speed—all the style and finish—that any owner wants. Yet even this car—because of our enormous facilities—costs but $1,850—gas lamps, magneto and Prest-O-Lite tank included.

## Our $1,000 Car

This year the 25-horsepower Overland, in roadster style, costs but $1,000. With complete toy tonneau, $1,100. This car has a 102-inch wheel base. It has carried four people up a 50 per cent. grade a hundred times a day. It has run 7,000 miles without stopping the engine. The possible speed is 50 miles an hour.

We are selling a 40-horsepower Overland, with 112-inch wheel base, for $1,250—with single rumble seat. Other Overland models give equal value at $1,300, $1,400 and $1,500. All prices include gas lamps, magneto and full tool equipment.



**The Marion-Overland is made as a racing roadster, also with torpedo body. It is also made as a town car, also with touring or close-coupled body. Two styles of bodies may be ordered—one open and one closed—adapting the car for summer and winter driving.**

## How We Do It

It is a conspicuous fact that no other make begins to give so much for the money. The reasons are these:

Our factories are equipped with modern automatic machinery. Each machine is adapted to its particular duty, and it performs it in a quick and economical way.

By these machines parts are always made alike, and we get exactness to the one-thousandth part of an inch. Over $3,000,000 has been invested to make Overland cars in this exact, economical way.

We devote one factory to one model alone. We make the parts which other makers buy. Then our enormous production—the largest in the world—keeps the overhead expense to the minimum.

Thus we have cut the cost 20 per cent within the past year alone. And thus we are in position to give the remarkable values which have multiplied our trade.

## Take Your Choice

There is an Overland car to meet every idea. There are a dozen prices, a dozen styles of body. Each has very important features found in no other make. Each gives for the money more than any other maker can give.

The cars are so satisfactory that the demand has multiplied twenty times over in the past two years, through what owners have said to others. That demand is now larger—and is growing faster—than for any other car ever made.

This car—which most men prefer—is the one you will prefer when you know it. There are Overland dealers in 800 towns, so the cars can be seen anywhere. But first cut out this coupon and send it to us so we may send you a complete book of facts.

Do this now.

The Overland

**The Willys-Overland Company** N35
**Toledo, Ohio**

**Send me the facts about**

**Passenger Cars [] Delivery Cars []**

**The Marion-Overland []**

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THE MOTOR WORLD

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## ELECTRIC INTERESTS ORGANIZED

### Makers of Vehicles and Central Station Concerns Form National Association to Boom Business—Their Plans.

Taking shape from a movement that has been in progress for several years looking to greater co-operation between the makers of electric vehicles and the producers of electric power current, an organization which is to be known as the Electric Vehicle Association of America, has been incorporated at Albany, N. Y., and is to have its principal offices in New York City. The new association is in no sense a combination or exclusive ring of makers of electric vehicle and battery manufacturers, as the active membership is equally open to central station corporations supplying electric current, makers of motors and electric vehicle body manufacturers, while electric company employes, owners of electric vehicles and others who are interested in the electric vehicle transportation problem are eligigle to the honorary membership list.

Chief among the objects of the association is the promotion of the adoption and use of electric vehicles by the public for pleasure and commercial purposes, and active cooperative work between the concerns supplying electric power and the companies making the vehicles. Efforts along this line have been conducted already in a local way in different parts of the country, where the electric vehicle makers have interested the central station companies, but under the new plan the movement will be national in scope.

An organization known as the Electric Vehicle and Central Station Association, which has been active in this direction in New England, is to be absorbed, and the Pacific Coast Electric Vehicle Association has indicated its desire to affiliate with the new national body. In addition to the offices in New York, branch offices are to be established in the near future in Boston and in San Francisco, while the branch office system later may be extended to include practically every large city in the United States.

Formal organization and the adoption of constitution and by-laws takes place the latter part of this week, the expectation being that William H. Blood, Jr., of the big electrical contracting firm and holding company, Stone & Webster, Boston, Mass., will be made president. The incorporators include Hayden Eames, of Cleveland; William H. Blood, Jr., and Frank J. Stone, of Boston; Charles Blizard, of Philadelphia; Herbert H. Rice, of Indianapolis; Weldon H. Freeman, of Brooklyn; Frank J. Gyer, of Orange, N. J.; Arthur Williams, Harry C. Cushing, Jr., and Harvey Robinson, of New York City.

### Case to Build Commercial Cars.

Motor trucks are to be made by the Case Motor Car Co., of New Bremen, Ohio, which has been incorporated with $50,000 capital. The company has secured the plant formerly occupied by the Grothaus-Laufersick Co., steel bridge makers. There are 35 local stockholders, the incorporateors of the company being J. H. and Edmund Grothaus, J. F. Laufersick, Otto J. Doesel and Louis Henke.

### United Motors Starts in Canada.

United Motors, Ltd., is a new Canadian company, capitalized at $200,000, which is to manufacture cars in Welland, Ont. The company announces that it will be producing cars at its new factory by Christmas. The provisional directors are Frederick Sager, Detroit, Mich.; E. A. English, Toronto; W. L. Adams, Niagara Falls; L. C. Raymond, B. J. McCormick, Welland.

### Jackson Absorbs Fuller's Factory.

The Fuller Buggy Co.'s factory at Jackson, Mich., has been combined with that of the Jackson Automobile Co., and the Fuller company will retire as a separate competitor in the automobile market. Both companies are owned by the same interests, with H. A. Mathews managing each.

## LETS BANKERS GIVE THE ANSWER

### United States Motor Gets Information from 4,830 of Them Concerning Mortgages —Exploding a Bugaboo.

Quite a deluge of refutation and vigorous denial that the public at large is mortgaging its homes and is heading toward bankruptcy by purchasing automobiles, was released when it became apparent that bond houses, small country bankers and certain other of the so-called "financial interests" were trying to put the motor car business in the light of a prosperity wrecker, but the most ambitious effort to obtain accurate information as to the facts appears to be that made by the United States Motor Co. in a canvass of 24,000 bankers, to whom blank forms were sent for them to furnish information as to the number of people in their vicinity who have mortgaged their homes or borrowed money to purchase automobiles. Replies now have been received from 4,830 bankers, relating to 198,216 automobiles in cities and towns, and the average discloses less than 4 per cent. of the machines as having been purchased with borowed money and less than 1 per cent. bought by mortgage placing. The figures look like the last nails in the coffin of the alarmist propoganda.

In addition to asking about the borrowed money and the mortgages, President Benjamin Briscoe requested the bankers to indicate, as far as possible, the percentage of cars used for business or useful purposes, and whether or not, in the bankers' opinion, the sale of automobiles will increase in their respective territories. The answers and comments weigh favorably on the side of increased sales next year and a preponderance of useful service rather than mere pleasure driving.

The 4,830 bankers who have answered supply figures which show that of the 198,216 automobiles in their respective cities and towns, only 1,254 have been bought by

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the placing of mortgages and only 7,475 by the borrowing of money without mortgage. In the opinion of 3,229 of the bankers the sale of automobiles will increase during 1911 over that of 1910, while 1,601 say that sales will not increase. The latter are bankers in the small towns and remote sections of the country, where exuberant optimism is rare.

Many of the letters dwell on the surprising extent to which so-called pleasure cars are used for business purposes by physicians, contractors, real estate men, farmers, business men and the bankers themselves. Strong commendations are given for the extent to which cars bring the farming sections in closer relation with the towns and cities.

"We have no sympathy with the talk that has been given out as to the extravagance of a large proportion of automobile purchasers and their duty to save money, or at any rate avoid the purchase of automobiles," says the president of one of the largest banking institutions in Chicago. "We believe if the same number of city and country people actually had mortgaged their properties, as alleged, and with the proceeds had bought securities which Wall street has for sale, that no suspicion of complaint would have been heard."

A predominating feature of the correspondence is the frankness and thoroughness with which the bankers made the investigation. Many of them personally talked with automobile dealers and garage men and with present and prospective owners, and the compilation indicates that there is every ground for the belief that the automobile industry is practically in its infancy and that the public is only just awakening to the great possibilities of the motor car, according to the compilers, supported by enthusiastic expressions to the same effect by the volunteer observers from the ranks.

### Weed Grip Prices are Reduced.

In accordance with the announcement recently made by the Weed Chain Tire Grip Co., of New York City, that following its patent victories it would lower the prices on its chain tire grips, the prices have been reduced substantially, taking effect on the 1st of September. The reduction extends throughout the range of sizes, from the 28 by 2½ size, which has been lowered from $5 per pair to $3.50, to the 40 by 6 size, which is now $15, as against the former price of $17.

### Rassell to Build Trucks in Toledo.

Launching the E. C. Rassell Co. with $25,000 capitalization, Edward C. and Nicholas W. Rassell, of Toledo, O., have commenced the manufacture of motor trucks in Toledo, O., in a factory at Lagrange street and the Michigan Central Belt. The company will make trucks of 22 horsepower, with a capacity of 1,500 to 2,000 pounds.

## CHANGES AMONG THE TRADESMEN

### Appointments and Resignations—Utz and O'Connor Leave Abbott—Heaslett Resigns from E-M-F.

Lewis A. Austin has resigned as secretary and assistant sales manager of the Autoparts Manufacturing Co., of Detroit, Mich., and after September 1 will be connected with the Western Motor Co., of Logansport and Marion, Ind. He will do considerable road work, making his headquarters at the Logansport plant. Fred. C. Neidermiller succeeds Lewis as secretary of the Autoparts company.

Don C. McCord has been made sales manager for Marion cars, with an office in factory No. 3 of the Willys-Overland Co., located at Indianapolis, Ind. His appointment marks a change in the management of the sales of the Marion car, which has been marketed by the regular Overland force. McCord for some time was the Overland factory representative on the Pacific Coast.

G. M. Berry and Jerry W. De Cou have been appointed assistant general managers of Thomas B. Jeffery & Co., of Kenosha, Wis., under Charles Jeffery, who continues as general manager. Berry is assistant general manager in charge of sales and office, while De Cou, formerly the purchasing agent, is assistant general manager in charge of the factory.

Frank H. Trego has been placed in charge of what the Hudson Motor Car Co., of Detroit, Mich., designates as its "service department." This department is newly created and aims to instruct dealers and owners how to maintain the efficiency of the cars after they have been sold.

John G. Utz and A. P. O'Connor have resigned from the Abbott Motor Co., of Detroit, Mich. The former was the designer and the latter the sales manager of the concern, which recently was bought by Warren (Pa.) oil men, and which makes the Abbott-Detroit car.

George D. Wilcox has been placed at the head of the sales department of the Regal Motor Car Co., Detroit, Mich., making his headquarters at the Detroit factory. He has been handling the agency for the Regal line in Syracuse, N. Y.

A. I. Dutton has resigned as publicity director of the Willys-Overland Co., of Toledo, Ohio. He is to become the sales manager of a Chicago concern.

James G. Heaslett has resigned as engineer of the E-M-F Co., of Detroit, Mich. His future plans are not as yet announced.

N. H. Miniter has become sales manager of the Vortex Vaporizer Carburetor Co., of Chicago, Ill. He recently was with the Eiseman Magneto Co., having previously been with the Factory Sales Corporation.

### Twentieth Century Moving to Newark.

The Twentieth Century Manufacturing Co., of New York City, is moving from its factory at 19 Warren street, to a new factory at 416 to 422 Ogden street, Newark, N. J., where it will have almost six times its present space for the manufacture of lamps and accessories. The workmen and office force are to move to Newark and continue their present positions. Thomas M. Dunham, the sales manager of the company, has returned from a business trip to the Pacific Coast, and his estimate of conditions and of prospects for next year are such as to make the factory increase imperative.

### Tennant Takes Marmon for Chicago.

Chicago representation for Marmon cars has been placed with Tennant Motors, Ltd., which shortly will announce the selection of a location on Michigan avenue, where it will handle the Marmon exclusively. The Tennant company formerly handled the Peerless, but sold the agency and its lease to the Peerless Motor Car Co., which now operates the business as a branch.

### Has Car and Company; Wants Plant.

Opening offices in Detroit, Mich., where it will make its headquarters while it casts about for factory "propositions" from other towns, the Walker Motor Car Co. has been organized, with a capitalization of $150,000, for the purpose of making the Walker "Six." C. M. Walker, of Walkerville, Ont., is named as the chief stockholder.

### Firestone Re-Elects Its Officers.

The Firestone Tire & Rubber Co., of Akron, O., held its annual meeting on the 24th ult., retaining the old board of directors. The following officers were re-elected for the coming year: H. S. Firestone, president and general manager; Will Christy, vice-president; S. G. Carkhuff, secretary, and J. G. Robertson, treasurer.

### Livingston Gets a Bigger Factory.

The Livingston Radiator & Manufacturing Co., of New York City, has moved from 312 West Fifty-second street to 146 West Fifty-second street. The change of factory location gives the company 15,000 square feet of floor space, and will multiply its manufacturing capacity about five times.

### Goodrich to Build French Plant.

Extending its "invasion" of France, the B. F. Goodrich Co., of Akron, Ohio, which already has a Paris selling branch, shortly is to erect a tire factory in that country. It has bought a factory site near Paris for the purpose.

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## SUES ON LAMPS WITH TAG HOLDER

**Philadelphia Concern Alleges that Others Infringe a Controlling Patent—Action Against Five Defendants.**

In an endeavor to establish for itself a patent monopoly on the construction of combination oil tail lamps and number plate brackets, the Rose Manufacturing Co., of Philadelphia, Pa., has instituted suits against five firms, on the ground that the latter are infringing a patent granted to the Rose company on April 7, 1908, and claimed to cover combinations of this character. The suits are again the Cox Brass Manufacturing Co., Lowe Motor Supplies Co., Thomas Harper and the American Auto Supply Co. in the United States Circuit Court for the Southern District of New York, and against James L. Gibney & Bro., in the Eastern District of Pennsylvania.

An aggregate of damages exceeding $65,000 is asked for in the suits. The plaintiff claims to have been manufacturing various forms of brackets in combination with tail lamps for several years, and that in addition to its present patents it has a number more pending, in relation to devices of the kind. A vigorous policy of prosecution against alleged infringers is announced.

**Premier Distributors at the Factory.**

Distributors of Premier cars gathered at the Premier Motor Manufacturing Co.'s factory in Indianapolis, Ind., last week for their second annual convention, the program including inspection of the 1911 models, lectures on the construction, on the sales and advertising situation, and on the prospects for the year, in addition to which there were luncheons, banquets, clam bakes and numerous social functions. The convention was presided over by President Harold O. Smith, and the mechanical features of the new cars were expounded by Vice-President George A. Weidely. One of the pleasant features of the week was the presentation of several handsome awards to men in the Premier organization, who have distinguished themselves in contests and in the factory work. Gold watches were given to Ray F. McNamara and Clifford Waltman, while Charles L. Ballinger received a diamond lion's head ring.

**Jewel to Reorganize on Bigger Basis.**

Reorganization steps are in progress for the Jewel Carriage Co., of Cincinnati, Ohio, which recently went into a receiver's hands, and the capital stock of the company is to be increased from $250,000 to $400,000. The company's difficulties, it is explained, arose chiefly from the delays in receiving materials. According to present plans, the receivership shortly will be raised and the business resumed under the old management. The company is building and shipping cars, and is prepared to receive and cars for all orders. It seeks to correct any impression that it went into bankruptcy instead of receivership. The Ohio Motor Car Co., the subsidiary company through which the automobile business is handled, is not involved in the receivership, and is continuing without interruption in the marketing of Ohio cars, and in the supplying of repair parts. For the coming season the Ohio will be offered in a five passenger touring car, four passenger close coupled tonneau, five passenger torpedo and a roadster. The motor is to be increased from 4¼ by 4¾ to 4½ by 4¾, adding considerably to the power.

**Schurmeier Builds Plant for Trucks.**

The Schurmeier Motor Car Co., of St. Paul, Minn., which recently was organized for the manufacture of motor trucks, has purchased, for $15,000, the land on the southwest corner of University avenue and Griggs street, on which it has completed a $12,000 one-story brick factory. The concern will make three styles of truck, designed by B. Bailey. Its officers are H. I. Whitney, president; H. H. Bigelow, of Brown & Bigelow, vice-president; Eli S. Warner, of the McGill-Warner Co. and president of the St. Paul Commercial Club, secretary and treasurer.

**Croxton-Keeton Creditors to Meet.**

Creditors of the Croxton-Keeton Motor Co., of Canton, Ohio, have been called for a first meeting on September 10, by A. M. McCarty, the referee in bankruptcy. The meeting is scheduled for 9 a. m., in Rooms 9, 10, 11, Eagle block, Canton. Among other matters that will come up will be the application of the receiver to make a contract with the Keeton Securities Co. for the use of some of the latter's patents under royalty.

**Toplitz in Voluntary Bankruptcy.**

A petition in volunary bankruptcy has been filed by Berthold L. Toplitz, dealer in automobiles, residing at 1229 Madison avenue, New York City. He gives his liabilities at $16,952, with no assets. The debts were contracted between 1901 and 1910 and there are many judgments against him. He formerly was a partner in the firm of Holmes & Toplitz, which was dissolved last May, and he desires to be discharged from the debts of that firm, as well as his individual debts.

**Erects Mills for Spokes and Hubs.**

For the manufacture of automobile spokes and hubs, the Wildermuth Bending Co., of Columbus, Miss., is to erect three mills near that place at a cost of $50,000. The company has purchased a 1,000 acres track thickly timbered with hickory.

## CAIRO LADIES LIKE LIMOUSINES

**Dealer in American Cars Explains Peculiarities of Egyptian Trade—Urges More Liberal Manufacturers' Policy.**

Makers who are casting a considering eye on foreign cities in relation to marketing cars, perhaps can glean a little lesson in the necessity of knowing the peculiarities of demand, from the observations of M. G. Torossian, who after a technical education in the United States has embarked in the handling of American cars in Cairo, Egypt. With experience on both sides of the ocean, he is able to point the salient trade features of the automobile market in that country.

"In Egypt there still is a tendency to buy four cylinder cars de luxe with landaulet or limousine body," he says, "as the native Turkish ladies prefer to ride in closed cars. The cars must be luxurious and at the same time cheap. In Cairo there are about 625 cars in private use, and some 70 machines that are used in taximeter service. The former are nearly all landaulet or limousine types, while the taximeter vehicles are chiefly second-hand machines remodeled for the service.

"There are about 20 motor car agents in Cairo. Half the cars in the city are of French manufacture; a quarter are English, and the remaining quarter are a mixture of Italian, Belgian and American. As yet American cars have no reputation in Egypt, principally on account of a lack of competent agents. If the car manufacturers in the United States would be less independent and would encourage their foreign agents a little more, they could develop a good business in the East. In Egypt the trade is just in its infancy."

**Rubber Shares in Severe Slump.**

Speculators in rubber shares have received a shock in the effects in the London market of the annual report of the Malacca Rubber Co., which has passed its expected dividend and which has slumped from $90 to $35 per share. The company was regarded as one of the strongest and best, and its unfavorable showing has caused a depression in most of the other rubber shares. Among other disquieting features of the report was the statement that a large proportion of the trees had to be "rested," reducing the output below the estimates.

**Whitney Intends Low Price Cars.**

Friction driven roadsters with two cylinder engines, to sell for $400, are the proposed product of the Whitney Motor Car Co., which has been incorporated in Detroit, Mich., with $150,000 capital. A first lot of 12 demonstraters is being put through.

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### The Week's Incorporations.

Uniontown, Pa.—Automobile Rental Co., under Pennsylvania laws, with $5.000 capital; to operate a garage and renting service.

Sewickley, Pa.—Anderson Automobile Co., under Pennsylvania laws, with $20,000 capital; to do general automobile business.

Oak Park, Ill.—South Boulevard Garage Co., under Illinois laws, with $2,500 capital; to maintain a garage. Corporators—A. V. Horn, F. Hazell, G. A. Ellingson.

Jackson, Tenn.—Jackson Garage Co., under Tennessee laws, with $10,000 capital; to do a general automobile business. Corporators—J. A. Pope, S. M. Spiller.

Pittsburg, Pa.—National Automobile Co., under Pennsylvania laws, with $100,000 capital; to do general automobile business. Corporators—M. J. Caton and others.

Denver, Colo.—Colorado Auto Oil Co., under Colorado laws, with $500,000 capital; to manufacture and refine automobile oils. Corporators—H. O. Andrews, L. B. Stevens.

Chicago, Ill.—Theo. Bass-Kingsland Co., under Illinois laws, with $15,000 capital; to deal in automobiles and accessories. Corporators—Theo. Bass, R. M. Kingsland, W. L. Phillips.

Troy, N. Y.—Wilson Automobile Co., under New York laws, with $10,000 capital; to deal in automobiles and motor vehicles. Corporators—V. D. Wilson, F. H. Deal, A. M. Powers.

Le Roy, N. Y.—Le Roy Motor Co., under New York laws, with $3,500 capital; to deal in agricultural implements and automobiles. Corporators—T. W. Larkin, E. C. Eberhart, A. T. McCowan.

Cincinnati, Ohio—American Auto Sales Co., under Ohio laws, with $50,000 capital; to do general automobile business. Corporators—G. H. Cauniff, J. K. Corwin, E. R. Kinney, W. W. Welch.

Greeley, Colo.—Weld County Automobile Co., under Colorado laws, with $40,000 capital; to deal in automobiles and maintain a garage. Corporators—D. R. McArthur, Geo. P. Strubel, Chas. Davis.

Birmingham, Ala.—Smith Motor Car Co., under Alabama laws, with $12,500 capital; to do a general automobile, bicycle and motorcycle business. Corporators—C. S. Sibley, S. L. Smith, J. B. Garber.

Syracuse, N. Y.—J. H. Valentine Co., under New York laws, with $20,000 capital; to manufacture and deal in motors, engines, machinery, etc. Corporators—J. H. Valentine, J. F. Sanchez, C. G. Hanna.

Indianapolis, Ind.—Washington Auto Co., under Indiana laws, with $10,000 capital; to manufacture, repair, rent and deal in automobiles. Corporators—A. M. New, F. H. Bruhn, J. N. Contler, F. J. Wallace.

Bradford, Vt.—Bradford Automobile Garage, under Vermont laws, with $10,000 capital; to do general automobile business and repair work. Corporators—H. E. Parker, W. S. Davis, H. W. Eaton, W. P. Williams, M. A. Gale.

Oklahoma City, Okla.—McCoole-Mercer Motor Co., under Oklahoma laws, with $10,000 capital; to manufacture and deal in automobiles, engines, etc. Corporators—M. F. McCoole, B. B. Mercer, M. L. Mercer.

Chicago, Ill.—Logan Square Automobile Co., under Illinois laws, with $50,000 capital; to maintain an agency and storehouse for automobiles. Corporators—Frank Ginner, George N. Harmon, C. F. Moremac.

New York City, N. Y.—Seymour Auto Supply Co., under New York laws, with $50,000 capital; to manufacture devices and supplies for automobiles. Corporators—P. C. Brashear, Seymour Suits, H. J. Howland.

Cincinnati, Ohio—Staver Motor Car Co., under Ohio laws, with $25,000 capital; to do general automobile business. Corporators—L. K. Emerson, G. W. Platt, R. L. Dollings, P. K. Gale, S. M. Adams, A. L. Parker.

Westbrook, N. Y.—Westbrook Garage & Machine Co., under New York laws, with $10,000 capital; to own, lease, buy, sell and manufacture automobiles and all kinds of vehicles. Corporators—J. T. Skillins, A. Spiers, W. Lyons.

Castleton, N. Y.—Belmont Motor Vehicle Co., under New York laws, with $25,000 capital; to manufacture, sell and repair motors, engines, vehicles and carriages. Corporators—H. H. B. Ingalls, A. C. Cheney, O. D. Woodford.

Niagara Falls, Ont.—United Motors, Ltd., under Canadian laws, with $200,000 capital; to manufacture automobiles in Welland. Corporators—Fred. Sager, of Detroit; E. A. English, W. L. Adams, L. C. Raymond, B. J. McCormick.

New York City, N. Y.—Geiszler Starting Device Co., under New York laws, with $50,000 capital; to manufacture starting devices for gas engines, manufacture and deal in appliances and supplies for gas engines, etc. Corporators—M. Geiszler, J. Geiszler, R. H. Muntz.

### Increases of Capital.

Chicago, Ill.—Peerless Tire Co. increases capital from $2,000 to $250,000.

Jeffersonville, Ind.—Bauer Machine Co. increases capital from $15,000 to $45,000.

Charleston, S. C.—Automobile & Marine Motor Co. increases capital from $7,000 to $15,000.

### Cycloid to Start in Minneapolis.

Minneapolis, Minn., has promise of an automobile factory as the result of the formation of the Cycloid Mfg. Co. in that city, with an incorporated capital of $600,000. A. Paegel, W. P. Cockey and C. O. Furbush are the inrorporators and they say that the company on October 15th will commence the manufacture of passenger cars and trucks.

### Factory Branches Established.

The Goodyear Tire & Rubber Co., of Akron, Ohio, is to open a branch in Toledo. Ohio. It will be located at 909 Jefferson avenue.

The Anderson Carriage Co., Detroit, Mich., has opened a branch in Cleveland, Ohio, at 10550 Euclid avenue. G. H. Rempes is the manager.

Cramped for lack of space in its old quarters the Philadelphia branch of the Consolidated Rubber Tire Co. has been moved to 208 North Broad street. H. Kissell is the manager of the Quaker City branch.

With L. W. Place as manager, and A. S. Watson as his assistant, the new factory branch of the Olds Motor Works in Atlanta, Ga., has been opened for business. The branch will be under supervision of the Trenton district headquarters.

Norman P. Druck, of Trenton, N. J., has been appointed manager of the new Stoddard-Dayton branch to be established in Philadelphia, Pa. The salesroom and garage of the agency is located at 237 North Broad street, and will be ready for occupancy October 1.

The C. F. Splitdorf Co., of New York City, has opened a branch in Los Angeles, Cal., on South Olive street, in the heart of the automobile district. The branch will be in charge of Perry Graves, who has been connected with the San Francisco office of the company.

The Regal Motor Car Co., of Detroit, Mich., has opened a branch in Cleveland, Ohio, at 1926 Euclid avenue. The branch will be in charge of Frank L. Pierce, who for seven years was sales manager of the Gaeth Motor Car Co., of Cleveland, manufacturers of the Gaeth car.

The Regal Motor Car Co., of Detroit, Mich., announces the establishment of direct factory branches in fourteen cities, in addition to that maintained in Detroit. The list includes Buffalo, Boston, New York, Philadelphia, Kansas City, Wichita, Oklahoma City, Chicago, Denver, Minneapolis, Indianapolis, San Francisco, Toledo, Lincoln and Toronto. The branches not only have ample stocks of Regal cars and parts, but mechanics with thorough factory training have charge of the repair department at each.

The Inter-State Automobile Co., of Muncie, Ind., has opened a branch in Boston. Mass, at 153 Massachusetts avenue, with Virgil A. Charles as district manager. A full stock of cars and repair parts is carried. Heretofore the Boston representation for Inter-State cars has been through an agency arrangement with the S. M. Supplies Co. The latter, however, has decided to close its Boston branch, relinquishing the Inter-State and the Brush runabout agencies. Charles was manager of the S. M. company's automobile department in Boston.

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## IN THE RETAIL WORLD.

The Speedwell agency for Portland, Ore., has been transferred to the new garage at 266 Eleventh street. It was formerly located at 533 Alder street.

E. H. Lapham, of New Canaan, Conn., is building a new garage at Talmadge Hill in his home town. The structure is of field stone, practically fireproof, and costs about $10,000.

The location of the Stearns agency in Seattle, Wash., has been moved to the corner of Broadway and Madison streets. It formerly was located at the corner of Fifth and University streets.

Edwin J. York and Herman K. Parshley, both of Dover, N. H., have purchased the property owned by Jasper H. Randlett on Hanson street. They will erect thereon a garage and repair shop.

Work has been started on the new building for Apperson and Regal cars in H street, near Fifteenth street, Washington, D. C. The structure will be ready for occupancy about November 1.

Julius Debits, former secretary of the late John Hemwall Automobile Co., of Chicago, Ill., has purchased the Overland garage at Fortieth avenue and Washington boulevard. He will feature Overland cars.

The G. H. Proctor Supply Co., of 25 Irvington street, Boston, Mass., has been appointed agent for the Pullman line of cars. Besides Pullman cars, the company will handle a full line of supplies and accessories.

R. S. Mattoon, a member of the contest committee of the Chicago Automobile Club, has been appointed manager of the Chicago branch of the Lexington Motor Co. The offices of the concern are at 1330 Michigan avenue.

Under the style New Jersey Overland Co., a new concern has been formed in Newark, N. J., to distribute Overland cars. The company will occupy the premises of the Essex County Overland Co., at 211 and 213 Halsey street.

Frank Roach, Charles Stabler, and Peter Lackner have formed a partnership and opened a garage and repair shop at 1070 East Fifty-ninth street, Cleveland, Ohio. They will operate under the style the R. S. L. Auto Repair Co.

Gawthrop & Wister, Elmore agents for Philadelphia, Pa., have moved into their new building at 242 North Broad street. The structure is 78 by 200 feet, two stories high, of concrete construction. Their former quarters were at 223 and 225 North Sixteenth street.

The firm of H. C. & C. D. Castle, of Boston, Mass., has been merged into the Lozier Sales Co., which will handle the Lozier cars in the Eastern half of Massachusetts. H. C. Castle, of the old firm, is president of the new Lozier Sales Co.; E. H. Ellison and W. Prescott are the other members of the concern.

W. S. Grady, of Lowell, Mass., has been appointed agent for Regal cars for Lowell, Lawrence and the surrounding towns. He will carry a full line of accessories and supplies in his salesroom, which is located at the corner of Bridge and Paige streets in Merrimac square.

Two new garages just have been opened in Windsor, Mich., a suburb of Detroit. One is owned by Clyde Curry and Walter Pabst, while the other is under the management of Hamilton Trumble, one of the aldermen of the town. Both buildings house the garage proper on the ground floor, while the other two floors are used as flats.

Owing to greatly increased business, the Bruce-Cubbins Automobile Co., Memphis, Tenn., has transferred its offices and salesrooms to 20-24 South Fourth street while the repair and garage department remains at the old location, 287 Monroe avenue, where it occupies the entire building. The sales and demonstrating cars will be stored at the Fourth street place.

Styled the Crescent Motor Co., a new company has been organized at Fond du Lac, Wis., for the purpose of opening a garage. The structure which is being built for them is 58 x 85 feet, with an annex for repair work 24 x 60 feet, and is located on North Main street, opposite the Coliseum. W. C. Reinig, W. A. Meiklejohn and F. G. Hurlbut compose the new concern.

Two mysterious fires occurred in Philadelphia last week, when the salesrooms of Ralston & Childs, dealers in automobile supplies, at 1312 Vine street, were damaged to the extent of $1,500. One fire started at 9:05 P. M., the other following about six hours later, at 3:40 A. M. Defective electric wiring is given as the cause, but the fire marshal is investigating the matter.

The new garage and salesroom which C. A. Coey is building on Michigan avenue, Chicago, Ill., is said to be the first automobile garage to be equipped with a landing station for aeroplanes on the roof. McFarlan cars are shown on the ground floor, in connection with his taxicab station, while the upper floors are to house automobile and aeroplane accessories and supplies.

Six stories high, absolutely fireproof, of red brick and Indiana limestone, the new headquarters of the Peerless Motor Co. at Boston, Mass., present a highly artistic outward appearance. The structure which occupies the corner plot at Beacon street, Brookline and Commonwealth avenues, is 90 x 105 feet, with a private side street 30 feet wide in the rear. John L. Snow is the manager.

The new building recently completed at 12th and Harirson streets, Oakland, Cal., will house four concerns prominent in the automobile business. They are: The Pioneer Automobile Co., which handles Thomas, Lozier, Chalmers-Detroit, Hudson, Babcock electrics and Wilcox trucks; the Central Motor Car Co., distributors of Knox and Buick cars; the Consolidated Motor Car Co., handling the Pope-Hartford line, and the Fleming & Tebbetts Co., agents for Morgan & Wright tires.

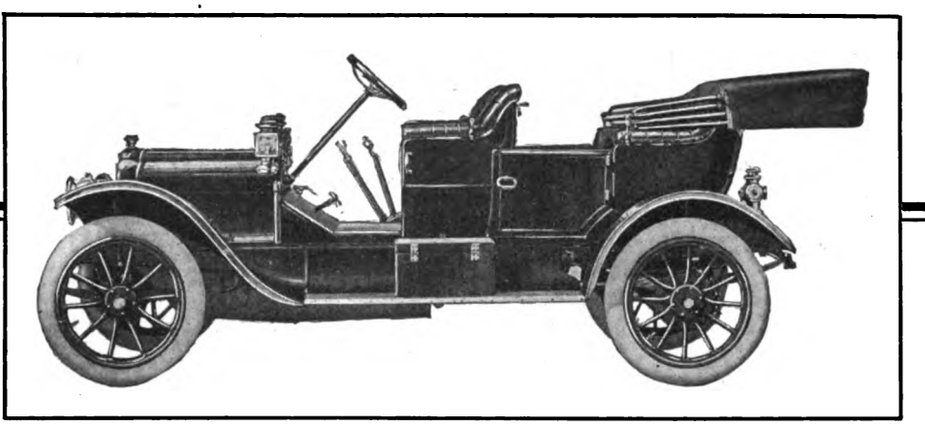
George Ehret, owner of the property extending from Fifty-eighth street to Fifty-ninth street on the east side of Broadway, is building a monster garage thereon. The building will cover the whole 33,000 square feet area with the exception of a space in the center, 40 by 100 feet, which will be used as a court. A unique feature of this garage is the construction of the roof, which is designed to carry large, heavy electric signs, the supporting columns being carried through the roof for this purpose.

New agencies have been established by the Henderson Motor Sales Co., of Indianapolis, Ind., distributors for Cole "30" cars, in three widely separated cities. At 4127 Olive street, St. Louis, Mo., the A. A. Franklin Co. will act as distributor for the state of Missouri; at 152 North Broad street, Philadelphia, Pa., the Franklin Motor Car Co. will look after the needs of the city of Philadelphia and the vicinity, while at 210 South Sixth street, Minneapolis, Minn., the Haynes Automobile Co. intends to feature the Cole "30," covering the States of Minnesota, and North and South Dakota.

Capitol avenue, Indianapolis, Ind., soon will be a regular "automobile row," as a number of firms are preparing to establish their salesrooms and garages on that thoroughfare. Frank P. Fox & Co., agents for Pope-Hartford gasolene and Rauch & Lang electric cars, have opened up at No. 510. Cadillac cars will be shown at 504, while the Haywood Tire & Equipment Co. will occupy No. 518. In a near-by building is located the Glick Auto College, while the Cole cars are to be shown at the corner of Capitol avenue and Verfont street. Just across the street is the headquarters of the Moon Automobile Co. The Buick company already is installed in North street, just west of Capitol avenue.

Heralded as the largest and finest garage in the South, the building erected for the Fairchild Motor Car Co. at the corner of St. Charles and Girod streets, New Orleans, La., was opened to the public on August 8th. The structure is 120 x 160 feet, with elaborate entrances on two streets, two stories high, of brick and concrete. Individual lockers of generous size and commodious baths are provided for the individual use of patrons, and a complete repair department for gasolene and electric cars is maintained in the annex. The lines represented by the Fairchild company include the Peerless and Reo gasolene cars, Rauch & Lang electrics and Rapid trucks.

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# The Long-Stroke Engine—An Explanation

THE long stroke engine must economize in the use of gasoline, and we will try to make it plain—very plain—just why. You know whether you would prefer to fill a gallon crock or a quart measure (if you had to pay for it). The gallon crock is the large-bore, short-stroke motor—the tall quart measure represents the medium bore, with the long stroke—both must be filled with gasoline in automobile work.

Of course the gallon crock has a greater capacity than the quart measure, but the greater capacity does not produce proportionately greater power. For example, you know that your revolver will not shoot so far nor penetrate so deeply as your rifle, using the same cartridge. In firearms we call it the length of barrel, and explain it by saying, we get the benefit of the whole expansion of the gas. In automobiles it is the same thing, but we call it the length of stroke. In a rifle we get results because there is but one direction for the gas to expand—the length of the barrel—in automobiles, if there is but one direction in which to expand, and that dimension is sufficiently long, we get the full power.

# White Motors Economical

The above tells the whole story of the remarkable performance of White gasoline cars and trucks, from a standpoint both in power and fuel consumption.

The four cylinders of the White motor are more nearly rifle-barrels than any others, consequently less explosive medium is required to produce the high-power rifle results. One other advantage follows: because White motors are not large and unwieldy, White cars are of moderate size and weight, consequently go over the roads more easily and are easier upon the tires and other items of maintenance.

Catalogues, testimonials and other literature gladly sent upon request.

# THE WHITE COMPANY

**830 EAST SEVENTY-NINTH STREET CLEVELAND, OHIO**

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## Enterprise and Its Mental Peril.

In the search for "sound business principles" and true commercial wisdom, it now has become quite the thing in certain strata of the automobile industry to affect almost a chilling degree of conservatism of the sort that slows creative effort either in designing, manufacturing or sales methods. The spirit of the idea is that the industry has indulged in many foolish capers in the past and has been guilty of vanities and extravagances of method that well could be forgotten, and that the business in the future should be reduced to the humdrum terms of the staple lines, without the "splurges" and sensationalism that have been features of its progress.

This conservatism is in a degree a healthy offset and check to that beautiful and abounding optimism in which men have rushed their riotous way in the industry to fortune or to ruin according to circumstance and the intrinsic value of their basic propositions. It also is in a measure timely in relation to the arrival of the inevitable "shake-down" periods, when even the strongest must feel some strain while the weaklings are being eliminated through stress of conditions.

Contempt is quite as well deserved for the exaggerated optimist who is blind to danger as for the pessimist who is blind to opportunity, even though the former is the more pleasant in human contact. But it is possible that in the contemplation of past errors and a discernment of adverse conditions in the future a degree of "conservatism" may be reached that is paralytic in its effects rather than merely wise in caution.

Everything that can be said in condemnation of the follies that have been exhibited in the past is true, but the form and magnitude in which the industry at present thrives is evidence enough that in the main the activities have been along the right lines. The initiative, the enterprise, the energy and the creative ability of the automobile industry have brought it to the size and prosperity which it now enjoys, and its swing and movement is such that no one can hold place in it by arresting development effort and, figuratively, casting anchor.

For those who would idealize the seemingly settled and unadventurous conditions that obtain in some of the old lines of manufacturing and merchandising, it is not amiss to point out that almost without exception such industries are awakening to the necessity for self-bestirring and for an emulation of the younger and more progressive manufacturers in point of enterprise both as to making and marketing. In fact they are becoming aroused to the need for casting off the very kind of conservatism that some minds in the automobile industries are tempted to regard as representative of solid business virtue.

Coming directly to the concrete application, it does not seem to be the part of modern business sagacity to permit the conservative spirit to become a deadener of enterprise. Improvements, new designs, sound extensions of selling arrangements, projects for finding new markets, advertising campaign plans, labor and time saving economies, advanced accounting systems and the myriad of new ideas and proposals that are brought forward cannot be waved aside or dismissed with a scant hearing on the ground that wise conservatism should leave such things to rash experimenters and industrial gamblers. True conservatism must take an entirely different form. A standstill policy is not conservatism. It is pessimism, laziness and commercial decay.

## Intent of the Service Department.

Well established automobile manufacturers in many instances are taking great pains with the organization of service departments and find the investment a profitable one. This phase of the industry, just now, is assuming the proportions of a trend and one that is calculated to be by no means of minor importance in its effect upon the business of the future. It is a movement not only to preserve the allegiance of customers, but to prolong the lives of their cars, and the effect upon the market is not far to seek.

Time was when it was the desire of many makers to sell new cars to as many owners of previous models as they could. In more than one present instance the frequent trading in of cars, merely for the sake of acquiring new models, is discouraged. The indirect intention is to reduce the number of machines of that particular make that are offered for sale in the second-hand markets. The newly created service departments are a strong factor in this effort.

With many makes of car, annual changes in the mechanism have been reduced to an almost negligible quantity. Hence, by replacing the original body with a new one, a car of one or two years' service becomes practically as good as new after it has undergone the careful treatment which the service department is prepared to give. The result is that the motorist who has ample confidence in the integrity of the builder of his car is quite as well satisfied as though he had a brand new machine. The manufacturer may be considered as in a more advantageous position than if he had traded in the same car for a new one, put the same amount of work on it and then offered it for sale as a second-hand proposition. Besides retaining the unquestioned confidence of his customer, he may be regarded as having a new car to sell instead of an old one; and from the selling point of view he is, therefore, that much better off.

The general intent of the service department, as contrasted with the mere repair shop, is that it represents an effort on the part of the manufacturer to ensure satis-

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facion to the users of his product, and guarantees them impartial results in handling maintenance and repair work. But in the obvious sense, as well as in the indirect object which appeals to a few of the makers, the movement is one of deepest significance to the industry. It reveals a disposition on the part of the automobile builders to assist the motorist in prolonging the life of his car and in reducing the expense of motoring in general. Superficially this looks like an attempt to stifle the demand for new cars. But there can be no question of the breadth and usefulness of the motive.

**Owners as the Greater Offenders.**

There is some prospect that the much-maligned chauffeur may come into his own after all. Critical observation of the roll of recent accidents throughout the country reveals the fact that an increasing proportion of them occur when the owner is at the wheel and not his hired man. Formerly it was the paid driver that was held responsible for about all the evil motor cars could do on the highway.

The fact of the matter is that "chauffeuring" is becoming a settled mode of industry; that, irrespective of questions of organization or the assumption of a position in the general cause of labor, the trade of motor car driver is taking on some of the dignity that pertains to any other rade. There are some things the average experienced chauffeur will not do, and one of them is to take needless chances on the road.

The motorist himself, on the other hand, if he happens to be desperately inclined, is restrained by no professional compunctions. Therefore, with just the right combination of circumstances, he may become as much a menace to other users of the road as the chauffeur of a few years ago undoubtedly was. With many owners of high-powered cars, the sensation of driving still is enough of a novelty to be more or less intoxicating.

In the main, of course, it makes little difference as to the individual status of the person who is responsible for a serious accident. There are certain types of man who always may be depended upon to become reckless of consequences and defiant of the law, but it is something to know that the competition resulting from the great number of men now seeking their living by handling automobiles, and the ethics of the calling gradually are dissolving the cloud that at one time overshadowed all who sought this method of earning their daily bread.

## COMING EVENTS

September 3, Philadelphia, Pa.—Quaker City Motor Club's sociability run to Ocean City, N. J.

September 3 and 5, New York City—Robertson-Oldfield meet at Brighton Beach. Dan J. Smith, promoter.

September 3 and 5, Indianapolis, Ind.—Grand Circuit meeting on Motor Speedway.

September 3-10, Denver, Col.—Automobile show at Overland Park.

September 5, Denver, Col.—Denver Motor Club's 200 miles road race.

September 5-6, Omaha, Neb.—Omaha Motor Club race meet.

September 5-10, Minneapolis, Minn.—Automobile races at state fair grounds.

September 7-10, Lyons, N. Y.—Wayne County Agricultural Society automobile races.

September 7-10, Buffalo, N. Y.—Automobile Club of Buffalo's touring reliability contest; 800 miles.

September 9-10, Providence, R. I.—Rhode Island Automobile Club's annual meet at Narragansett Park.

September 10, San Francisco, Cal.—Automobile Club of California's Portola road race in Golden Gate Park.

September 10-12, Seattle, Wash.—Seattle Motor Club's race meet.

September 10-12, New York City—Motor Contest Association's Catskill tour and hill climb.

September 15, Oklahoma City, Okla.—Oklahoma Automobile Association's hill climb.

September 16, Algonquin, Ill.—Chicago Motor Club's fifth annual hill climb.

September 17, Syracuse, N. Y.—Automobile Club of Syracuse-Syracuse Automobile Dealers' Association joint race meet at fair grounds track.

September 18, Los Angeles, Cal.—Annual road race up Mount Baldy.

September 18-20, Elmira, N. Y.—Automobile races at Tompkins county fair.

September 20, Omaha, Neb.—Inaugural meet on Omaha Motor Speedway.

September 20-22, Louisville, Ky.—Louisville Automobile Club's annual reliability and endurance run.

September 21, Atlanta, Ga.—Atlanta Automobile Association meet on speedway.

September 24, Narbeth, Pa.—Norristown Automobile Club's race meet.

September 26-29, St. Louis, Mo.—Third annual national good roads convention.

September 30-October 4, Minneapolis, Minn.—Minneapolis "Tribune" reliability run to Aberdeen, S. D., and return.

October 1, Long Island Motor Parkway, N. Y.—Motor Parkway Sweepstakes.

October 1, Springfield, Ill.—Automobile races at state fair grounds.

October 1, Mineola, L. I.—Sixth annual Vanderbilt Cup race on Long Island Motor Parkway, under the auspices of the Motor Cups Holding Co.

October 6-7, Chicago, Ill.—Chicago Automobile Club-Chicago Athletic Association inter-club run for Myers trophy.

October 6-8, St. Louis, Mo.—American Road Builders' Association's third national good roads convention.

October 7-8, Indianapolis, Ind.—Closing meet on Indianapolis Motor Speedway.

October 8, Richmond, Va.—Automobile races at state fair grounds.

October 8, Philadelphia, Pa.—Quaker City Motor Club's third annual 200 miles road race in Fairmount Park.

October 10-15, Hot Springs, Ark.—Automobile races at Arkansas State Fair.

October 15, Mineola, L. I.—Motor Cups Holding Co., 278 miles international road race on Motor Parkway, for the Grand Prize of the Automobile Club of America.

October 20-22, Atlanta, Ga.—Atlanta Automobile Association's meet at motordrome.

October 27-29, Dallas, Tex.—Dallas Automobile Club's race meet.

November 3-5, Atlanta, Ga.—Atlanta Automobile Association's fall meet on speedway.

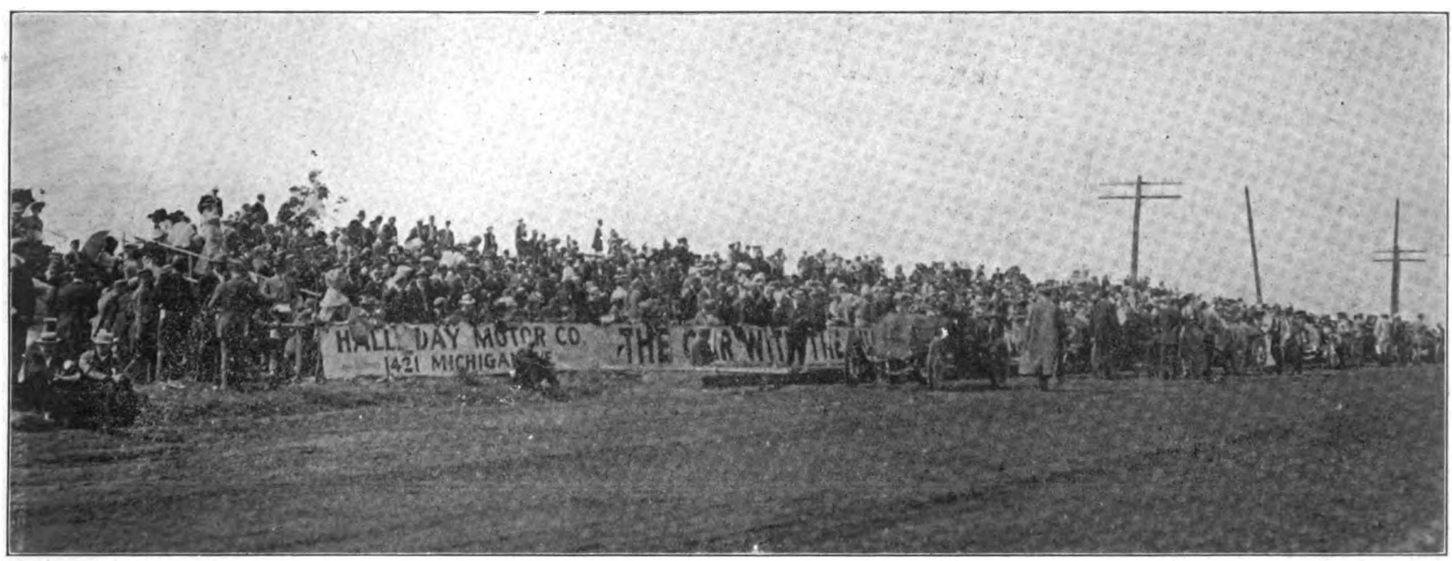
New York City hotels report an extraordinary amount of business this summer from automobile touring parties, and it is believed that August will prove the most profitable month in that respect ever known. This seems the more remarkable for the reason that business of this character usually has been supposed to fall almost entirely into the hands of the provincial hotel man. But it is evident that there is now a fully established system of motor touring tides, flowing to and from the distant seashore and mountain resorts, and that as touring facilities improve and the confidence of motorists in the car as a reliable vehicle of transportation increases, the tendency to make New York a general center for these movements is growing apace.

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# ELGIN YIELDS WEST'S BEST RACING

## Mulford Captures the Elgin National Trophy—Livingstone, Buck and Hearne Win the Illinois, the Kane and the Fox River Trophy Contests, Respectively—Two Days of Speed Battles Under Smiling Skies but Over Rough Course—Great Crowds Attend, Yet Not a Spectator Hurt.

A new era in the annals of Western automobile road racing dawned last week with the staging of the 1910 national stock chassis races at Elgin, Ill., on Friday and Saturday, 26th and 27th ult., by the Chicago Motor Club. They represented the culmination of months of hard work to give Westerners a seance of speed that would compare favorably with the Vanderbilt, the standard by which all American road races are judged, and the effort was highly successful. Never before has the middle West witnessed such stirring speed battles on the road and such masterful driving displayed by the cream of American drivers, who girdled the eight and one-half miles circuit on the outskirts of Elgin on Friday and Saturday last.




VIEW OF THE GRANDSTAND AT ELGIN JUST BELOW THE STARTING LINE

Best known for his work in 24 hour track contests, Ralph Mulford, the star of the Lozier forces, who has not started in a road event since the 1908 Fairmount Park classic, signalized his return to road racing by driving one of the 1911 four cylinder 46 horse power Loziers to victory in the 305 miles Elgin National Trophy race on Saturday. Mulford, who drove the most brilliant race of his career, completed the 36 circuits in 4:52:29.84, an average of 62.5 miles an hour—the highest average which the carnival produced. Albert Livingstone, a California speed artist, who was imported by the National Motor Vehicle Co. for the occasion, achieved second honors by his notable performance. Livingstone, who was comparatively unknown outside of his native haunts, drove a magnificent race and gave Mulford a close run for the trophy.

Emulating the Vanderbilt, the curtain raiser on Friday was of the merry-go-round order, and combined three races in one; the Illinois at 203.35 miles, the Kane County, which was billed at 169.46 miles, and the baby race, the Fox River, which was set at 135.57 miles. Livingstone in the National was the bright particular star of the day, winning the Illinois in a dashing and spectacular drive in 3:21:08.53, an average of 60.6 miles an hour, which betters his average in the Elgin by 4-10 of a mile per hour. Second place went to a veritable dark horse, Pearce, in the Falcar, who scored another for the Windy town. Less than three minutes after Pearce crossed the finish line, Dawson, the Marmon find, came hurtling from the stretch on his final round, and third place was his.

Dave Buck, the new addition to the Marmon team, showed his mettle by capturing the Kane County race for the Indianapolis concern. Buck streaked off the 20 circuits which was the task set for that class, at the rate of 55 miles an hour. He did the jog in 3:04:45.79, while Adolph Monsen, Marion, who ran second, required 3:07:52.65. The house of Marmon scored again when their other representative, Heinemann, tucked third place in his blouse. Four of the seven starters had finished when the race was called.

American cars, which up to this time had had things their own way, received a temporary set-back in the Fox River race, when E. A. Hearne, a former Chicago amateur, who now is in the trade, drove a German Benz, the only foreign entrant, to victory. He tolled off the 16 laps in 2:30:40, scoring an easy and decisive win. A. W. Miller, Warren-Detroit, and G. Monckmeier, Staver, both of whom shied their castor in the ring for the first time, finished second and third. Hearne's average was 53.6 miles an hour.

By a peculiar coincidence the winner of each of the four events of the meet also made the fastest lap of the race, while Livingstone in the National topped the performances of all the others, with a record lap in 7:52 in the Illinois on Friday. Next came Mulford, who clipped off a circuit in 7:54 in the Elgin. As was natural with the increasing horse powers, the average speeds mounted with each race, beginning with 53.6 in the Fox River and culminating with 62.5 in the Elgin National. Buck in the Marmon

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scored the record lap in the Kane County, with a trip around in 8:21, while Hearne and the Benz captured the lap honors in the Fox River by melting off the 8½ miles ribbon in 9:10.

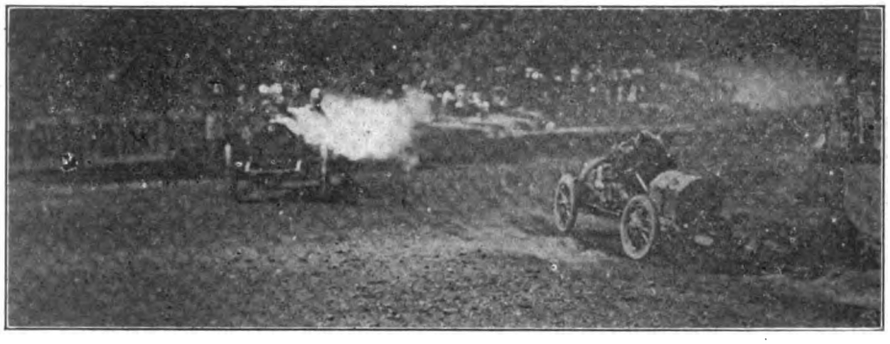
With one exception, the class winners scored again in the matter of consistent running. Hearne was the stellar performer with a total variation of but 41 seconds, Livingstone came next with 1:33, and Mulford's fluctuation amounted to 1:52. Monsen, who ran second in the Kane County, took the consistency honors in that decision, and kept within a margin of 3:29. Considering the difference between the Vanderbilt and Elgin courses the results attained on the latter were excellent. In the Elgin National, Mulford came within 4-10 of a mile an hour of equalling the last Vanderbilt average.

Always an interesting question, the tire honors went to Michelin by an overwhelming majority. They were the equipment on the first three cars in the Elgin National, Illinois and Kane County events, and also were fitted to the Warren-Detroit, which ran second in the Fox River. Firestone tires were fitted to the winning Benz and to the Staver, which took third, in the Fox River.

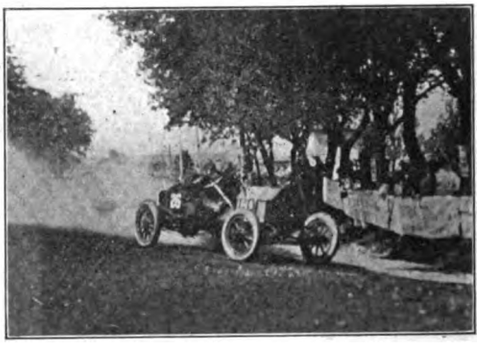
Almost eight and one-half miles in circumference, the wedge shaped course was perfectly patrolled by 200 members of the Fifth Regiment, I. N. G., assisted by a detail of 200 specially sworn deputy sheriffs and a detachment of 50 special officers. Those who were not awed by the knights of the club showed a wholesome respect for the men with the bayonets and there were few who attempted to cross the "dead line." The wire fence erected on both sides of the course also proved very efficacious in keeping the crowds back. That not a single spectator was injured attests to the ability with which the guardians of the course performed their duties.

Although the races did not start until 10 o'clock on Friday morning the scenes on the course the night before were similar to the picturesque nocturnal doings which are a feature of the eve of the Vanderbilt. Elgin was overflowing with people vainly seeking places to sleep, and the human stream grew larger all the time. Fabulous prices were offered for rooms, but without avail, and those who had not had the foresight to make reservations weeks before, had to accept pot luck. Farmers reaped a harvest by converting their barns into temporary lodging houses, fitted up with cots, and many private houses were opened to the visitors. For the first time in its history Elgin on Thursday night presented a real metropolitan appearance with thousands of people and hundreds of cars scurrying through its streets throughout the night. The speed laws were smashed to smithereens, but no serious accidents occurred.

In order to help defray expenses the club introduced an innovation in the management of road races by charging a modest fee to every person who witnessed the contest. All property bordering on the course was temporarily commandeered by the club under an arrangement with the owners.. In many of the farmers' yards grandstands were erected, while parking spaces were sold on the roads bordering the course. The grandstand, which the club by a good stroke of business acumen secured at a small cost after it had been used for the review of the recent Knights Templar parade in Chicago, brought in a good sum. It had a capacity of 4,500, while the bleachers, with a seating capacity of 20,000, were parceled out at 50 cents a seat, and also brought good returns.

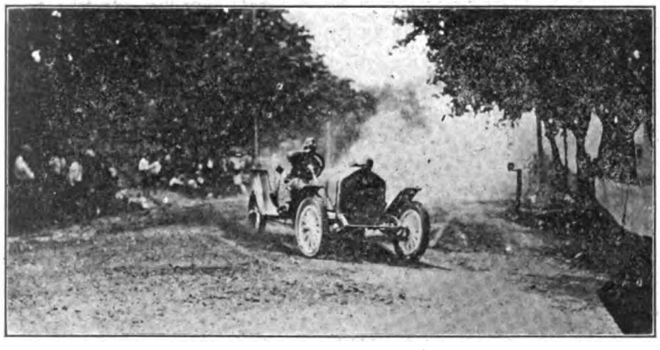


ENDICOTT LEADING SCHILLO AROUND THE TURN



BUCK AT THE "LAST CORNER"

The course being only 40 miles from Chicago, Windy City society was out in force and the boxes and reserved seats presented a riot of color. The combined attendance for the two days is estimated at 150,000, with fully 100,000 present on Saturday, the day of the great race. An unexpected cold snap on the previous day had brought out from storage many fall and winter overcoats, but they were not needed, for the sun came out in all his glory and soon the crowds were sweltering instead of shivering, as they had expected.



LIVINGSTONE MAKING LAST TURN ON COURSE



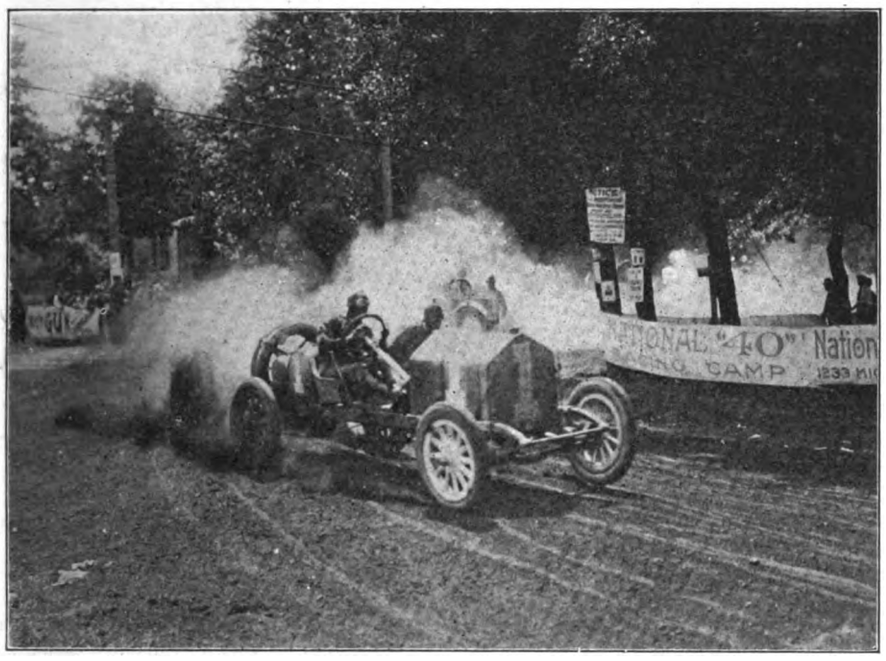
LIVINGSTONE ON THE "HAIR PIN"

Along the course the usual army of fakers and card sharps were camped with their stands in full blast. They were not molested, for the reason that they were ouside the ciy limits and no serious complaints were made. Sandwich men shouted their wares lustily, as did the purveyors of other edibles and novelties, until the din resembled a babel of voices. Embracing the opportunity to add a few dollars to their bank account, several farmers took out government licenses and supplied the thirsts of the populace despite the protests of the prohibition element.

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# Three Races at Once on the Opening Day

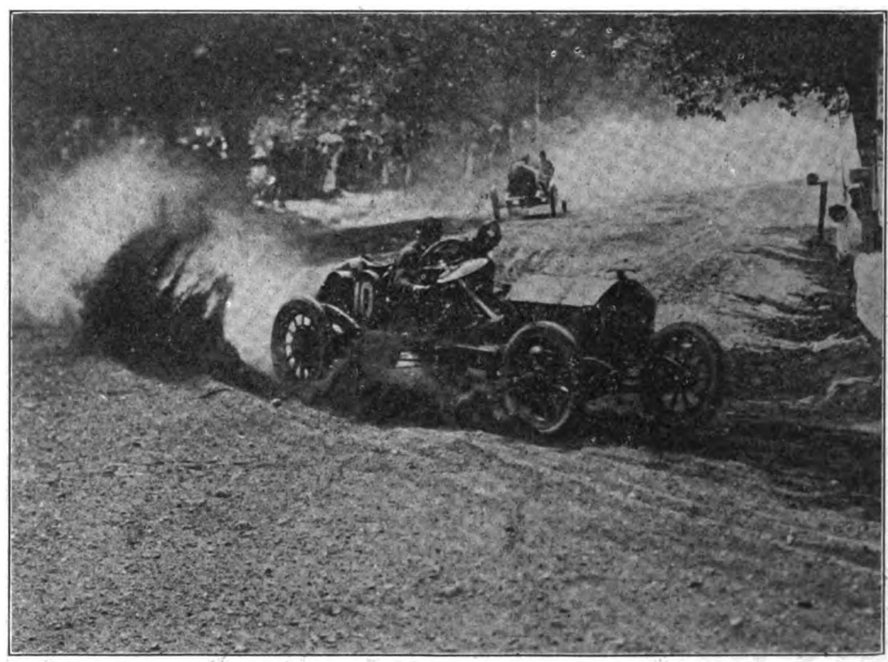
Eastern race managers well might take a lesson or two from the Chicagoans in the matter of punctuality. Friday's program went off according to schedule from the very crack of the gun at 10 o'clock sharp, and this despite the complication incident to arranging for the successive starts of three simultaneous races. The 21 cars were lined up in pairs, Livingstone, the National pilot, at the head of the Illinois competitors. The entrants in the Kane County and Fox River races were ranged behind. The cars were dispatched at 30 second intervals.



LIVINGSTONE'S NATIONAL IN A CRITICAL MANOEUVER

At 9:59 the warning flag was waved and immediately 21 engines commenced to vomit smoke and flames as they awaited to be released from the leash. Although there had been 23 nominations for the first day, the two Ford entries upon being weighed on the previous day were found way below weight and were disqualified by the technical committee. The Ford people immediately entered a protest, but Referee Beecroft upheld the committee's ruling.

Livingstone came to the line with his engine rumbling rythmically. The crowd was tense with that expectancy that lends such interest to the early moments of a race Starter Fred Wagner commenced to toll off the seconds: "Ten, nine, eight, . . . three, two, one—Go!" and with a slap on the back, Livingstone was bounding down the road. Pearce in the Falcar followed Livingstone in 30 seconds, and then came Endicott, Kisselkar; Gelnaw, Falcar; Ireland, Midland; Dawson, Marmon; Greiner, National; and Drach, Lexington, the last of the Illinois contenders. Hardly had Drach started splitting the atmosphere, when the first of the Kane County delegation, Matson in the Corbin got the word. He was followed a half minute later by Schillo, Overland; Heinemann, Marmon; Monsen, Marion; Schoeneck, Kisselkar; Buck, Marmon, and Fritzschke, Cino.



BILLOWS OF DUST RISING FROM DAWSON'S MARMON

With the departure of Fritzschke the crowd settled back to wait for the early starters to reappear at the end of their first lap. Across the fields in the distance they could faintly discern beyond the trees and haystacks small objects dashing along, only to be soon lost to sight. After a brief wait the megaphones called "Car coming" the crowd strained for a view up the course and the roar of a motor was heard, growing louder as a car burst into view. Leaping and bounding along it hurtled down the stretch and the cry went up "It's Livingstone!" The National flier, first over the line, still retained his lead and presently was lost to sight in the distance. His time was 8 minutes 14 seconds for the round.

Half an hour after Fritzschke had left, the Fox River contingent were sent away from in front of the pits, the road being kept clear for the cars already running. The little fellows left in this order: Cheney, Staver; W. Endicott, Cole; Crane, Staver; Hearne, Benz; Monckmeier, Staver, and Miller, Warren-Detroit. This arrangement was devised to bring as many cars as possible into the tail end of the race and sustain interest, and it worked out well.

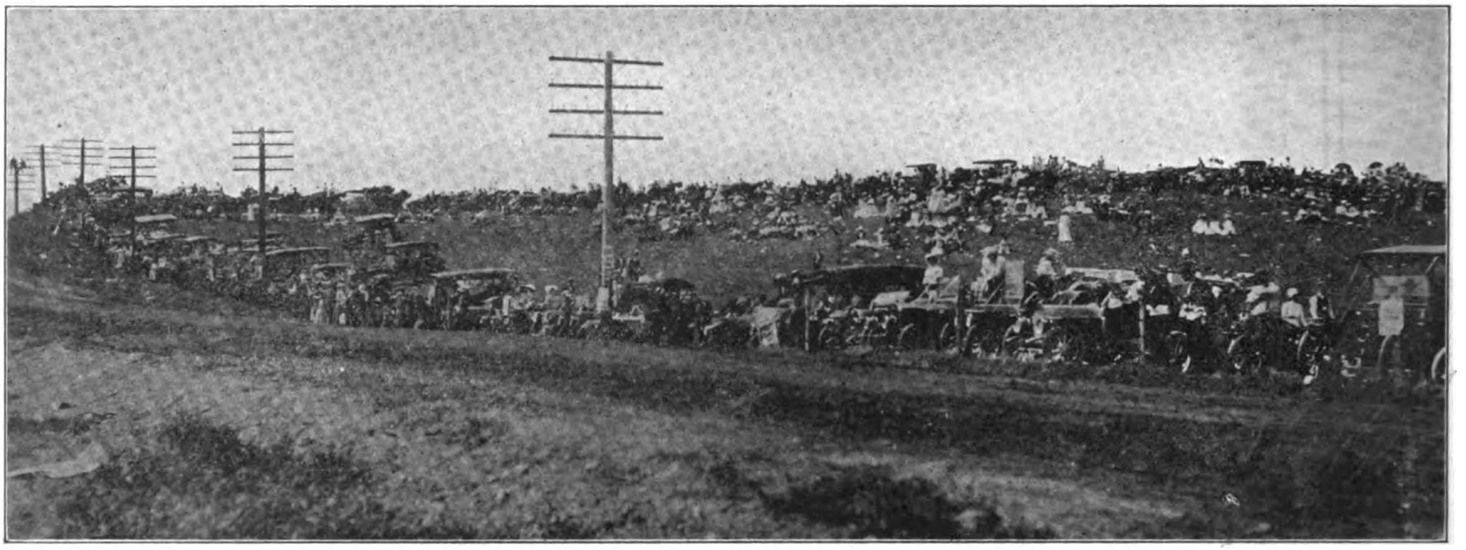
Greiner's National was the second of the big cars to complete the initial lap, and then came Gelnaw in the Falcar, who had moved up one notch in the round. Ireland, Midland, came around fourth, registering 9:15 for the lap, followed by Endicott in the Kisselkar. The belated Pearce arrived next, having had ignition trouble when barely out of sight of the stands, which cost several precious minutes. After Drach in the Lexington had passed there was a long wait until Dawson in the Marmon reported.

Mishaps began to develop in the first lap and continued to develop throughout the race. Dawson in the Marmon wrenched off his change gear lever and for the rest of the race was unable to shift his gears, be-

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ing forced to stay on high and draw the clutch and let it slam back in lieu of dropping down the gears. Not only that, but he once went off the road into the ditch and back again in attempting to pass another with the others Fritzschke pulled over to the left too sharply and went into the fields, ripping down posts and fences like paper. Both Fritzschke and his mechanic, Thorp, were severely torn and lacerated by the was regarded as a likely winner in his class.

Livingstone still was glued to the lead when the tenth lap was reeled off, but Gelnaw, the ambitious, had worked the Falcar into second place, Dawson, in the Marmon,



ONE SECTION OF THE CROWD THAT LINED THE COURSE ON BOTH DAYS

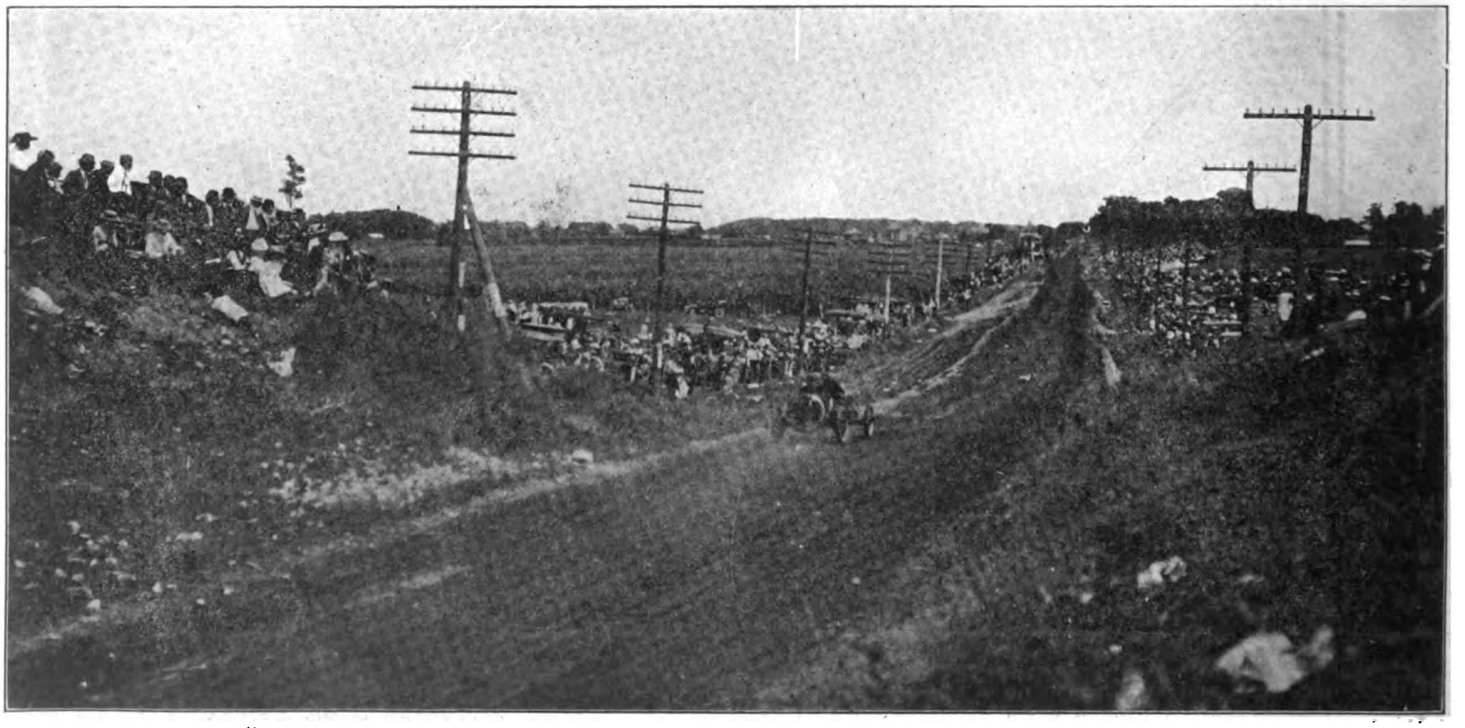
car, and rushed on regardless. Continuous irritating mishaps made him still more reckless as the grind went on and towards the end he was tearing around the turns at a rate that terrorized the spectators at those action centers.

cruel barbs and were taken to the hospital.

The fifth lap of the Fox River marked the elimination of Cheney in the Staver, which broke an oil lead on one of the big bumps and was forced to quit. No more "died" until the eighth lap of the Kane

was third, and Greiner in the National was only seven seconds behind him.

Before the Kane County was half over, it had lost three cars, the greatest mortality of any class thus far. The four who then were running, Buck, Monsen, Heinemann



ONE OF THE GENTLE SLOPES THAT MADE FAST TIME A POSSIBILITY

The first to go out of the contest was Fritzschke in the Cino, who came to grief in the second round on the Udina turn. They were caught in a crush and in attempting to work out and still avoid a collision

County, when Schoeneck, in the Kisselkar, disappeared from the line of battle, to be followed in the next lap by Matson in the Corbin with a broken frame. The latter's retirement was a disappointment, for he

and Schillo were destined to live to the finish. There also was plenty of action in the Fox River, Hearne still widening the gap, and just sleighriding along. Bill Endicott had a good grip on second, leading

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Crane, Staver, by over seven minutes, and the latter soon ceased to be a factor. His retirement came in the fifteenth lap, when he was disqualified for the failure of his mechanic to look behind for approaching cars, when Crane was pulling up at the pits.

Just before stopping, Crane had passed Greiner in the National, and the latter was close behind. Greiner, receiving no intimation of Crane's intentions, kept on, and when he saw the Staver slackening, had to do some quick dodging to avoid a collision. By a sharp wrench of the wheel to the right, he managed to clear the Staver by a hair. The incident held the crowd spellbound for a moment, and when it recovered its senses, it broke forth in loud cheers for Greiner. The referee immediately ordered Crane out of the race and disqualified him.

When Endicott was put out by a stone thrown by the wheels of a car in front crashing through the radiator of his Cole, Hearne's most dangerous rival in the Fox River was removed. Miller in the Warren-Detroit moved up a notch, but had to keep on the jump to stave off Monckmeier in the solitary Staver, who seemed bent on revenging the "death" of his mates.

Towards the final stages it became evident that Livingstone and Hearne had the Illinois and Fox River trophies practically standing on the mantle and interest centered in the Kane County, where competition was keener. Buck, Marmon, had broken a spring, but was tearing along regardless, while his mate, Heinemann, was experiencing much tire trouble. In the periods when they were able to get together they did some great team work in pacing each other. About the sixteenth lap Heinemann's mechanic, Harry Patton, succumbed to the pounding of the roads, and collapsed as he was taken out of the car and a new man substituted. Although several of the drivers and mechanics had wrapped their bodies to save them from being bruised by the terrible jouncing, this precaution did not save them from much punishment.

When Livingstone started on his last lap, the 24th, he had over 10 minutes lead on Pearce in the Falcar, who was tearing along desperately in the hope that some kind fate would put him in the lead. It was not to be, however, and Livingstone held the 10 minutes margin in the last lap, which he covered in 8:46.53. Pearce did his final circuit in 8:21.22 and beat out Dawson in the Marmon for place by nearly three minutes. Dawson was going great guns towards the finish in an effort to wrest second, and tore off the last lap in 8:04.62. Then a period of over eight minutes passed before Greiner in the second National came tearing past the stand on his final lap, beating out Ireland's Midland by a scant fifteen seconds. The finish between these two was the closest of the day.

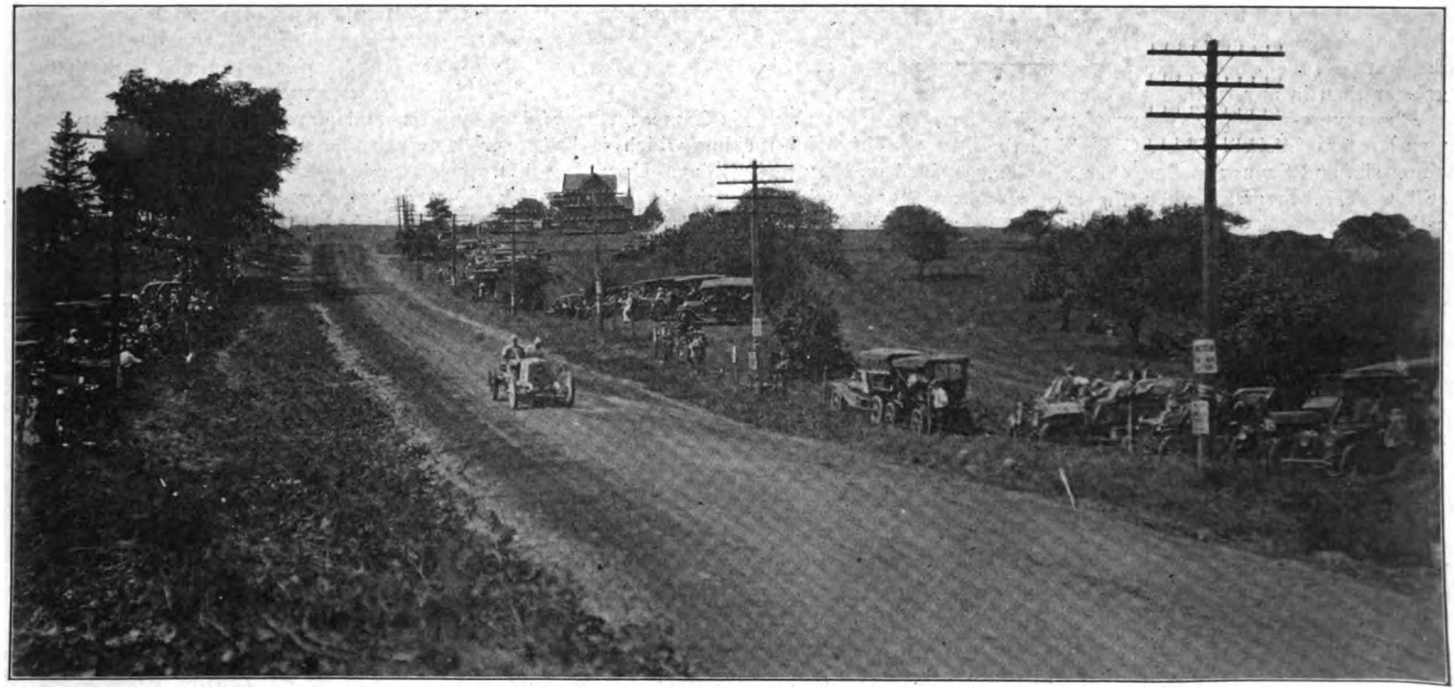
Dave Buck, Marmon, and Adolph Monsen, Marion, had a hammer and tongs fight for the Kane County trophy, and the former captured it by three minutes and seven seconds. Heinemann in the second Marmon came in twelve minutes after Monsen, and the last survivor in the class, Schillo, Overland, arrived twenty minutes later.

In the Fox River, Hearne had a veritable walkover at the finish, beating Miller in the Warren-Detroit by over 25 minutes. Monckmeier in the Staver trailed along six minutes after Miller, and the first day's National stock chassis races of 1910 took their place in sporting history.

When Livingstone, who was a great favorite with the crowd, because of his pretty driving, crossed the finish line, he continued for another lap to the National camp. He had driven a wonderful race, making a non-stop run, which indicates to what extent sagacious driving and a sound car may count in a long run. At times he reached a speed of 80 miles an hour, but he invariably cut down on the turns to save his car, a system which was followed by most of the veterans.

## How Mulford Won the Elgin National Trophy

Their appetite for speed whetted by the sensational racing which the first day produced, a much larger crowd, which conservative estimates place at close to 100,000, saw Ralph Mulford hurl the Lozier for 305 miles to victory on Saturday at the rate of 62.5 miles an hour. The victory involves possession of the magnificent $4,500 trophy offered by the Elgin National Watch Co., and $1,000 in cash besides. It will be held by the Lozier Co. for one year. Livingstone, driving the same speedy National with which he captured the Illinois trophy on Friday, averaged 60.2 miles an hour in making second place. More honors came to the National when Greiner slid in third at an average rate of 58.4 miles an hour. Then came the pride and the hope of the



MULFORD AND THE LOZIER GOING "GREAT GUNS" WHERE GOING WAS GOOD

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## TABULAR STORY OF THE RACE FOR THE ELGIN NATION

| Pos. | Driver and Car. | | 1<br>8 miles,<br>2,499 ft. | 2<br>16 miles<br>4,998 ft. | 3<br>25 miles<br>2,217 ft. | 4<br>33 miles,<br>4,716 ft. | 5<br>42 miles<br>1,935 ft. | 6<br>50 miles<br>4,434 ft. | 7<br>59 miles<br>1,653 ft. | 8<br>67 miles<br>4,152 ft. | 9<br>76 miles,<br>1,371 ft. | 10<br>84 miles,<br>3,870 ft. | 11<br>93 miles,<br>1,089 ft. | 12<br>101 miles,<br>3,588 ft. | 13<br>110 miles.<br>807 ft. | 14<br>118 miles,<br>3,306 ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | R. Mulford, Lozier | Elapsed time | 8:18 | 16:18 | 24:18 | 32:25 | 40:37 | 48:44 | 56:53 | 64:57 | 73:03 | 81:09 | 89:10 | 97:10 | 105:05 | 113:0[illegible] |
| | | Lap time | | 8:00 | 8:00 | 8:07 | 8:12 | 8:07 | 8:09 | 8:04 | 8:06 | 8:06 | 8:01 | 8:00 | 7:55 | 7:55 |
| 2 | A. Livingstone, National | Elapsed time | 8:24 | 16:26 | 24:28 | 32:26 | 42:09 | 50:23 | 58:24 | 66:19 | 74:27 | 82:29 | 90:32 | 98:35 | 106:45 | 114:53 |
| | | Lap time | | 8:02 | 8:02 | 7:58 | 9:43 | 8:14 | 8:01 | 7:55 | 8:08 | 8:02 | 8:03 | 8:03 | 8:10 | 8:08 |
| 3 | A. W. Greiner, National | Elapsed time | 8:26 | 16:32 | 24:38 | 33:01 | 42:50 | 51:23 | 61:07 | 69:17 | 77:37 | 85:56 | 94:13 | 102:30 | 111:00 | 119:19 |
| | | Lap time | | 8:06 | 8:06 | 8:23 | 9:49 | 8:33 | 9:44 | 8:10 | 8:20 | 8:19 | 8:17 | 8:17 | 8:30 | 8:19 |
| 4 | G. Robertson, Simplex | Elapsed time | 8:20 | 16:26 | 24:33 | 32:36 | 40:41 | 48:44 | 56:51 | 64:55 | 73:00 | 89:21 | 97:36 | 109:23 | 117:45 | 129:52 |
| | | Lap time | | 8:06 | 8:07 | 8:03 | 8:05 | 8:03 | 8:07 | 8:04 | 8:05 | 16:21 | 8:15 | 11:47 | 8:22 | 12:07 |
| | H. Saynor, Simplex | Elapsed time | 13:57 | 22:51 | 32:01 | 46:25 | 56:15 | 66:28 | 79:51 | 91:13 | 110:10 | 120:03 | 129:29 | 138:54 | 148:46 | 158:00 |
| | | Lap time | | 8:54 | 9:10 | 14:24 | 9:50 | 10:13 | 13:23 | 11:22 | 18:57 | 9:53 | 9:26 | 9:25 | 9:52 | 9:14 |
| | B. Oldfield, Knox | Elapsed time | 8:32 | 20:37 | 28:40 | 37:18 | 46:00 | 57:41 | 69:05 | 82:49 | 93:44 | 103:35 | 112:34 | 121:25 | 130:04 | 143:00 |
| | | Lap time | | 12:05 | 8:03 | 8:38 | 8:42 | 11:41 | 11:24 | 13:44 | 9:55 | 9:51 | 8:59 | 8:51 | 8:39 | 12:56 |
| | J. Dawson, Marmon | Elapsed time | 8:51 | 17:21 | 25:50 | 34:21 | 42:50 | 51:16 | 59:43 | 68:10 | 76:37 | 85:04 | 93:29 | 101:45 | 110:05 | 118:29 |
| | | Lap time | | 8:30 | 8:29 | 8:31 | 8:29 | 8:16 | 8:27 | 8:27 | 8:27 | 8:27 | 8:25 | 8:16 | 8:20 | 8:24 |
| | C. Stinson, Black Crow | Elapsed time | 9:55 | 19:32 | 29:01 | 40:13 | 49:38 | 59:08 | 68:40 | 88:26 | 97:58 | 108:50 | 124:08 | 133:50 | 142:44 | 153:29 |
| | | Lap time | | 9:37 | 9:40 | 11:02 | 9:25 | 9:30 | 9:32 | 19:46 | 9:32 | 10:52 | 15:18 | 9:42 | 8:54 | 11:25 |
| | E. Schiefler, Jackson | Elapsed time | 9:00 | 20:09 | 31:40 | 40:24 | 53:42 | 62:19 | 70:50 | 79:25 | 88:01 | 96:27 | 105:00 | 113:32 | 122:03 | Ditch |
| | | Lap time | | 11:09 | 11:31 | 8:44 | 13:18 | 8:37 | 8:31 | 8:35 | 8:36 | 8:26 | 8:33 | 8:32 | 8:31 | |
| | H. Endicott, Kisselkar | Elapsed time | 9:38 | 18:49 | 28:07 | 37:23 | 46:41 | 55:58 | 65:03 | 76:23 | 85:52 | 94:56 | 133:53 | Broken Radiator | | |
| | | Lap time | | 9:11 | 9:18 | 9:16 | 9:18 | 9:17 | 9:05 | 11:20 | 9:29 | 9:04 | 38:57 | | | |
| | C. Basle, Matheson | Elapsed time | 8:48 | 17:20 | 25:54 | 34:34 | 43:11 | 51:58 | 60:44 | 69:48 | 78:09 | 87:24 | 95:50 | Wrecked | | |
| | | Lap time | | 8:32 | 8:34 | 8:40 | 8:37 | 8:47 | 8:46 | 9:04 | 8:21 | 9:15 | 8:26 | | | |
| | H. Grant, Alco | Elapsed time | 8:12 | Wrecked | | | | | | | | | | | | |
| | R. Harroun, Marmon | Elapsed time | 8:48 | Seized piston | | | | | | | | | | | | |

East, George Robertson and his Simplex, who was a victim of incessant tire trouble. He had lost so much time replacing the footwear which the spunky Simplex persisted in kicking off that he steadily dropped behind and had to take fourth honors. Robertson drove in his usual brilliant style and experienced no mechanical trouble.

Owing to the poor condition of the course, which, despite its hurried grooming over night, still showed plainly the effects of the chopping which it received on the first day, the mortality in the Elgin was greater than in any of the minor classes of the "merry-go-round," but four of the thirteen starters finished. Two, Oldfield in the Knox six, and Saynor in the other Simplex, still were in the fray when the race was called.

In many respects the Elgin National was not only the greatest road race the middle west has witnessed, but one that was productive of most unexpected results. For instance, Grant, the last Vanderbilt winner, met disaster in the second lap, while pushing the Alco at a terrific clip, and Harroun, the pride of the Marmon camp, likewise succumbed to the fortunes of war on his second round. Six cylinder cars, which a few months ago appeared to be in the ascendancy in speed contests, temporarily at least have gone into eclipse, for not one of the three which started finished, though wholly through the fault of highway casualties.

It was not speed alone which returned Mulford a winner, but a well proportioned mixture of fast work at opportune times and a thorough knowledge of the course and its peculiarities. During the practice sessions the blonde New Yorker was a most earnest and persistent student of the circuit, and the results of his long workouts were apparent on the race itself. Mulford's victory was a notable triumph for the East, the more so in that it was made in the enemy's territory. He made but one stop, which was unnecessary, and drove most consistently throughout.

Much credit is being given Livingstone and his mechanic for their plucky work in the face of odds that would have unnerved many a man. Shortly before the start, it afterward was reported, Livingstone discovered a crack in his frame, probably due to the frightful racking which it had received on the previous day. Unwilling that another should undergo the terrible risk unknowingly, he informed his mechanic of the situation and gave him leave to withdraw. But the latter would not hear to any such thing, and the plucky pair started on their perilous journey with the pleasant knowledge that at any moment the weakened frame might be rent asunder. Fortunately the weakness was more apparent than real, for the car came through unscathed.

Society was out in even greater force than on Friday and the stands were simply overflowing, while all around the course the oiled ribbon was hemmed on both sides by rows of spectators several deep. The militia and deputy sheriffs rendered the same valuable service in keeping the course clear, and so stringently were orders enforced that even officials who got outside the lines had to prove themselves to get

## HOW THE ILLINOIS TROPHY RACE WAS RU

| Driver and Car. | | 1<br>8 miles,<br>2,499 ft. | 2<br>16 miles,<br>4,998 ft. | 3<br>25 miles,<br>2,217 ft. | 4<br>33 miles,<br>4,716 ft. | 5<br>42 miles,<br>1,935 ft. | 6<br>50 miles,<br>4,434 ft. | 7<br>59 miles,<br>1,653 ft. | 8<br>67 miles,<br>4,152 ft. | 9<br>76 miles,<br>1,371 ft. | 10<br>84 miles,<br>3,870 ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Livingstone, National | Elapsed time | 8:14 | 16:06 | 24:00 | 31:55 | 39:52 | 47:58 | 55:58 | 64:03 | 72:14 | 8[illegible] |
| | Lap time | | 7:52 | 7:54 | 7:55 | 7:57 | 8:06 | 8:00 | 8:05 | 8:11 | 8[illegible] |
| Pearce, Falcar | Elapsed time | 11:43 | 20:10 | 28:41 | 37:11 | 45:31 | 53:59 | 62:58 | 71:10 | 79:54 | 90:[illegible] |
| | Lap time | | 8:27 | 8:31 | 8:30 | 8:20 | 8:28 | 8:59 | 8:12 | 8:44 | 10:4[illegible] |
| Dawson, Marmon | Elapsed time | 16:15 | 24:42 | 33:03 | 41:13 | 49:19 | 57:47 | 65:53 | 73:59 | 82:00 | 90:0[illegible] |
| | Lap time | | 8:27 | 8:21 | 8:10 | 8:06 | 8:28 | 8:06 | 8:06 | 8:01 | 8:0[illegible] |
| Greiner, National | Elapsed time | 8:44 | 17:34 | 26:33 | 35:19 | 44:18 | 53:24 | 62:24 | 71:23 | 79:58 | 90:1[illegible] |
| | Lap time | | 8:50 | 8:59 | 8:46 | 8:59 | 9:06 | 9:00 | 8:59 | 8:35 | 10:1[illegible] |
| Ireland, Midland | Elapsed time | 9:15 | 18:19 | 27:37 | 36:52 | 46:08 | 55:24 | 64:37 | 73:48 | 83:00 | 92:1[illegible] |
| | Lap time | | 9:04 | 9:18 | 9:15 | 9:16 | 9:16 | 9:13 | 9:11 | 9:12 | 9:16 |
| Gelnaw, Falcar | Elapsed time | 9:10 | 18:05 | 27:09 | 36:03 | 44:52 | 53:52 | 63:20 | 72:12 | 81:03 | 89:46 |
| | Lap time | | 8:55 | 9:04 | 8:54 | 8:49 | 9:00 | 9:28 | 8:52 | 8:51 | 8:43 |
| Drach, Lexington | Elapsed time | 11:59 | 23:29 | 34:46 | 45:53 | 56:59 | 68:03 | 79:07 | 90:05 | 101:01 | 111:55 |
| | Lap time | | 11:30 | 11:17 | 11:07 | 11:06 | 11:04 | 11:04 | 11:58 | 10:56 | 10:54 |
| Endicott, Kisselkar | Elapsed time | 9:57 | 19:44 | 29:34 | 39:02 | 49:15 | 58:59 | 68:34 | 77:59 | 87:28 | 96:46 |
| | Lap time | | 9:47 | 9:50 | 9:28 | 10:13 | 9:44 | 9:35 | 9:25 | 9:29 | 9:18 |

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**AL TROPHY, SHOWING TOTAL TIMES AND TIMES BY LAPS.**

| 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 127 miles, 525 ft. | 135 miles, 3,024 ft. | 144 miles, 243 ft. | 152 miles, 2,742 ft. | 160 miles, 5,241 ft. | 169 miles, 2,460 ft. | 177 miles, 4,959 ft. | 186 miles, 2,178 ft. | 194 miles, 4,677 ft. | 203 miles, 1,896 ft. | 211 miles, 4,395 ft. | 220 miles, 1,614 ft. | 228 miles, 4,113 ft. | 237 miles, 1,332 ft. | 245 miles, 3,831 ft. | 254 miles, 1,050 ft. | 262 miles, 3,549 ft. | 271 miles, 768 ft. | 279 miles, 3,257 ft. | 288 miles, 486 ft. | 296 miles, 2,985 ft. | 305 miles, 204 ft. |
| 21:07 | 129:08 | 137:09 | 145:09 | 153:10 | 161:09 | 169:05 | 176:59 | 184:55 | 193:13 | 202:59 | 211:05 | 219:14 | 227:24 | 235:29 | 243:31 | 251:40 | 259:47 | 268:01 | 176:16 | 284:24 | 292:29.84 |
| 8:03 | 8:01 | 8:01 | 8:00 | 8:01 | 7:59 | 7:56 | 7:54 | 7:56 | 8:18 | 9:46 | 8:06 | 8:09 | 8:10 | 8:05 | 8:02 | 8:09 | 8:07 | 8:14 | 8:15 | 8:08 | 8:05.84 |
| 23:07 | 131:39 | 140:06 | 148:24 | 156:37 | 169:19 | 177:43 | 186:00 | 194:15 | 202:24 | 210:33 | 218:47 | 227:05 | 235:26 | 243:55 | 252:28 | 260:59 | 269:32 | 278:10 | 286:50 | 295:32 | 304:10.90 |
| 8:14 | 8:32 | 8:27 | 8:18 | 8:13 | 12:42 | 8:24 | 8:17 | 8:15 | 8:09 | 8:09 | 8:14 | 8:18 | 8:21 | 8:29 | 8:33 | 8:31 | 8:33 | 8:38 | 8:40 | 8:42 | 8:38.90 |
| 27:45 | 136:12 | 144:35 | 153:01 | 161:30 | 169:52 | 178:12 | 186:21 | 197:05 | 205:25 | 213:48 | 222:42 | 231:20 | 240:02 | 240:00 | 257:56 | 266:54 | 275:50 | 284:46 | 293:54 | 303:24 | 313:23.30 |
| 8:26 | 8:27 | 8:23 | 8:26 | 8:29 | 8:22 | 8:20 | 8:09 | 10:44 | 8:20 | 8:23 | 8:53 | 8:38 | 8:42 | 8:58 | 8:56 | 8:58 | 8:56 | 8:56 | 9:08 | 9:30 | 9:59.30 |
| 38:03 | 146:08 | 159:34 | 167:47 | 179:14 | 187:28 | 198:53 | 207:02 | 215:01 | 223:00 | 230:57 | 239:10 | 252:30 | 260:46 | 268:52 | 276:49 | 285:46 | 298:29 | 306:53 | 315:02 | 324:04 | 332:20.98 |
| 8:11 | 8:05 | 13:26 | 8:13 | 11:27 | 8:14 | 11:25 | 8:09 | 7:59 | 7:59 | 7:57 | 8:13 | 13:20 | 8:16 | 8:06 | 7:57 | 8:57 | 12:43 | 8:24 | 8:09 | 9:02 | 8:16.98 |
| 68:02 | 177:27 | 186:39 | 196:02 | 205:24 | 214:32 | 224:16 | 233:44 | 243:12 | 252:50 | 262:16 | 271:48 | 281:27 | 293:10 | 303:40 | 312:07 | 321:49 | Race called | | | | |
| 10:02 | 9:25 | 9:12 | 9:23 | 9:22 | 9:08 | 9:44 | 9:28 | 9:28 | 9:38 | 9:26 | 9:32 | 9:39 | 11:47 | 9:30 | 9:24 | 9:42 | | | | | |
| 51:50 | 160:41 | 169:34 | 178:25 | 187:06 | 201:04 | 209:54 | 218:57 | 227:33 | 236:22 | 244:19 | 256:20 | 265:08 | 283:07 | 297:38 | Race called | | | | | | |
| 8:50 | 8:51 | 8:53 | 8:51 | 8:41 | 13:58 | 8:50 | 9:03 | 8:36 | 8:49 | 7:57 | 12:01 | 8:48 | 17:59 | 14:01 | | | | | | | |
| 26:45 | 135:08 | 143:25 | 151:43 | 159:58 | 168:17 | 181:26 | 192:33 | 200:56 | 209:00 | 217:09 | 225:14 | Wrecked | | | | | | | | | |
| 8:16 | 8:23 | 8:17 | 8:18 | 8:15 | 8:19 | 13:09 | 11:07 | 8:23 | 8:04 | 8:09 | 8:05 | | | | | | | | | | |
| 63:15 | 173:31 | 189:26 | 199:48 | 222:01 | 237:17 | 247:38 | 257:57 | Ditched | | | | | | | | | | | | | |
| 10:46 | 10:16 | 15:55 | 10:22 | 23:53 | 15:16 | 10:11 | 10:19 | | | | | | | | | | | | | | |
| d | | | | | | | | | | | | | | | | | | | | | |

back. There were many attampts on the part of pompous and self-important persons to beguile the guards into letting them cross the course, but without avail. When their reasons were submitted for examination they failed to stand the acid test and the bluffers were repulsed. Ideal weather again favored the races, and except for the broiling sun, which beat down unmercifully on the spectators but which was tempered by cooling breezes, a more perfect day could not have been desired.

Immediately after the races on Friday gangs of men got busy on the course and patched up as well as they could the holes which the smaller cars had torn in the road. The turns which had suffered most were banked and packed and some of the worst bumps on the stretches were smoothed down. It was impossible to give more than a cursory treatment to the course and on Saturday it was not as good as on Friday, which was but natural, for it was impossible to eradicate all the damage which had been done.

Again the officials made a name for themselves in the matter of promptness, and Starter Wagner gave Greiner in the National the sendoff a few minutes after 10 o'clock. Half a minutes later Stinson in the Black Crow was released and he flew down the stretch and in a twinkling was lost to sight over the hill beyond. Then came Mulford, togged out in white to match his snow white Lozier. The others followed in the order of their numbers until Schiefler in the Jackson, the thirteenth and last man, was splitting the air. He wore number 14, the hoodoo 13 having been eliminated.

Scarcely half a minute after Schiefler had left, the bugles sounded and the word "Car coming!" was passed along. Grant in the Alco, sixth to start, had immediately cut loose and passed the five who were in front of him. He made the circuit in 8:12, and had been on his second round six seconds when Mulford completed his first. This was a magnificent start for the sturdy and conservative New England driver, but he soon after came to grief near the hairpin turn, when he struck a treacherous projection in the road that wrecked his clutch, crumpled the frame and cast the wrecked flier upon the roadside.

At about the time of Grant's elimination Harroun, in the Marmon, was knocked out near the McLean turn. He had been pushing his engine to the limit to stay with the leaders and the terrific heat caused a snug fitting piston to take a death grip on its cylinder and the car had to be retired.

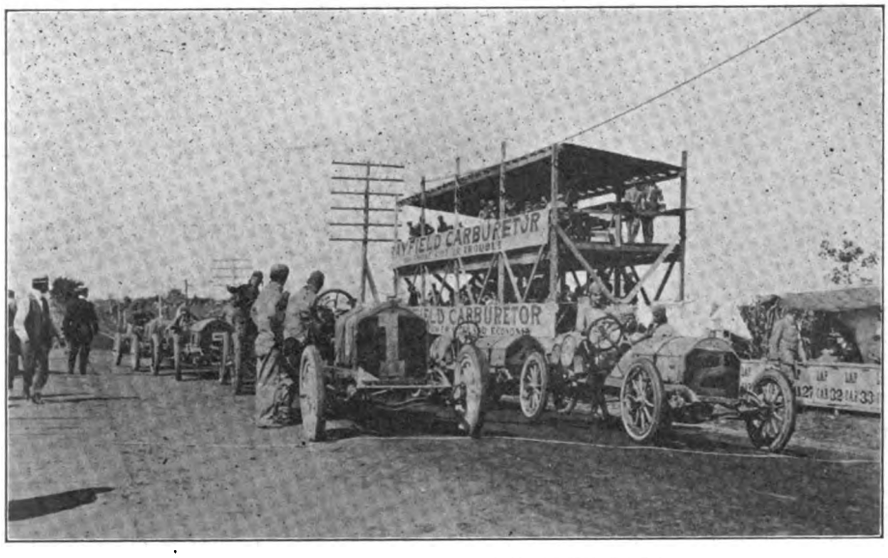
In the meantime the others were having their troubles, that is some, but not all. Mulford was sailing along steadily and smoothly and Livingstone had crawled into second place. He held it until the fifth lap, when Robertson, who was driving like a fiend, moved up and displaced him. Then ensued a duel between Robertson and Mulford that was one of the most thrilling features of the race. Robertson gained a few seconds in the fifth lap and caught Mulford just before they came into the stretch, both coming furiously down the road abreast and crossing the tape together. Shortly they were tied to the second, and the crowds cheered madly as they flew past. Interest now centered in the fight between these

**N AND WON, TOTAL AND LAP TIMES GIVEN.**

| 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 miles, 1,089 ft. | 101 miles, 3,588 ft | 110 miles, 807 ft | 118 miles, 3,306 ft | 127 miles, 525 ft. | 135 miles, 3,024 ft. | 144 miles, 243 ft. | 152 miles, 2,742 ft. | 160 miles, 5,241 ft. | 169 miles, 2,460 ft. | 177 miles, 4,959 ft. | 186 miles, 2,178 ft. | 194 miles, 4,677 ft. | 203 miles, 1,896 ft. |
| 88:30 | 96:34 | 104:55 | 113:02 | 121:58 | 130:43 | 139:31 | 148:26 | 156:49 | 165:12 | 174:37 | 183:20 | 192:22 | 201:08.53 |
| 8:10 | 8:04 | 8:21 | 8:07 | 8:56 | 8:45 | 8:48 | 8:55 | 8:23 | 8:23 | 9:25 | 8:43 | 9:02 | 8:46.53 |
| 99:29 | 108:42 | 117:37 | 126:12 | 134:40 | 143:12 | 151:40 | 160:05 | 168:36 | 177:13 | 185:51 | 194:26 | 202:58 | 211:19.22 |
| 8:51 | 9:13 | 8:55 | 8:35 | 8:28 | 8:32 | 8:28 | 8:25 | 8:31 | 8:37 | 8:38 | 8:35 | 8:32 | 8:21.22 |
| 98:09 | 106:29 | 116:23 | 124:58 | 133:27 | 141:54 | 150:16 | 162:25 | 170:55 | 179:08 | 190:10 | 198:10 | 206:05 | 214:09.62 |
| 8:06 | 8:20 | 9:54 | 8:35 | 8:29 | 8:27 | 8:22 | 12:09 | 8:30 | 8:13 | 11:02 | 8:00 | 7:55 | 8:04.62 |
| 98:27 | 120:13 | 130:52 | 139:06 | 147:22 | 155:40 | 163:57 | 172:13 | 180:36 | 188:57 | 197:25 | 205:34 | 213:52 | 222:15.30 |
| 8:17 | 21:46 | 10:39 | 8:14 | 8:16 | 8:18 | 8:17 | 8:16 | 8:23 | 8:21 | 8:28 | 8:09 | 8:18 | 8:23.30 |
| 101:25 | 110:28 | 119:33 | 128:38 | 137:43 | 146:52 | 157:09 | 166:34 | 175:48 | 185:11 | 194:34 | 204:03 | 213:12 | 222:30.10 |
| 9:09 | 9:03 | 9:05 | 9:05 | 9:05 | 9:09 | 10:17 | 9:25 | 9:14 | 9:23 | 9:23 | 9:29 | 9:09 | 9:18.10 |
| 98:35 | 107:21 | 130:52 | 139:36 | 148:23 | 157:07 | 165:50 | 179:22 | 204:21 | 213:11 | 221:59 | Race called | | |
| 8:49 | 8:46 | 23:31 | 8:44 | 8:47 | 8:44 | 8:43 | 13:32 | 24:59 | 8:50 | 8:48 | | | |
| 122:58 | 133:55 | 144:57 | 156:01 | 167:01 | 178:03 | 190:50 | 201:53 | 212:54 | 224:00 | Race called | | | |
| 11:03 | 10:57 | 11:02 | 11:04 | 11:00 | 11:02 | 12:47 | 11:03 | 11:01 | 11:06 | | | | |
| Broken radiator | | | | | | | | | | | | | |

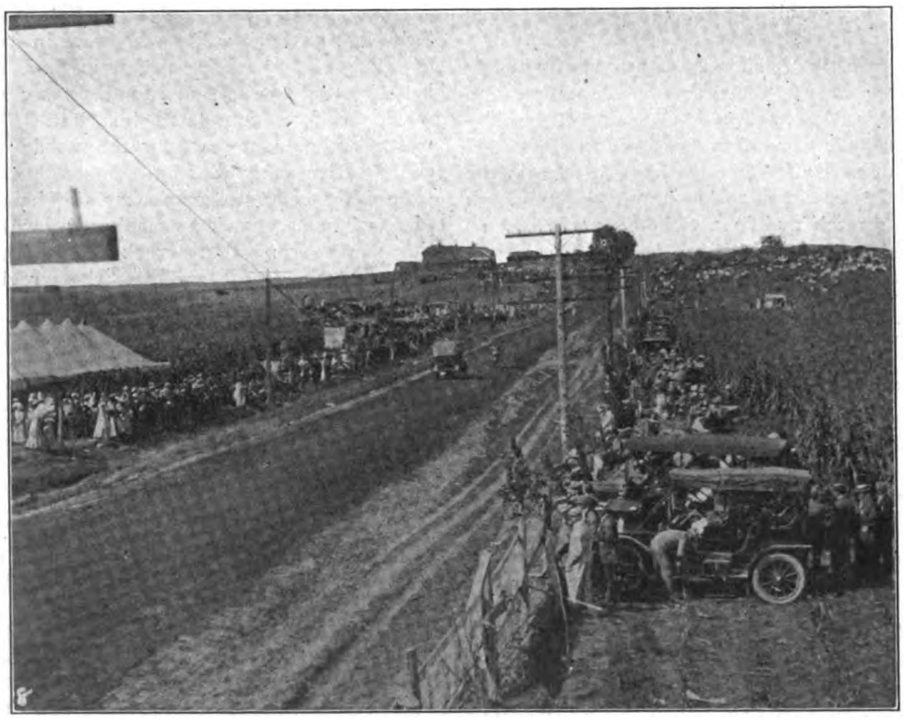
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two, Greiner having stopped for tires and Livingstone also. Gaining slowly but surely Robertson wrested the lead from Mulford in the sixth lap and in the seventh and eighth he continued to increase his gains by seconds.




START OF THE ILLINOIS TROPHY RACE

Over-enthusiastic ones already began to give Robertson the race, but they were poor prophets, as events soon proved. When Mulford came around on the tenth lap Robertson was missing, and in his place came Livingstone, followed by Dawson in the Marmon. "Where is Robertson?" the cry went up, and soon came the answer from the announcer. "He has stopped on account of tire trouble." This was the first of a long series of stops that so proved his undoing. His first stop came as a result of trying to pass Endicott on the Udina turn, and being unsuccessful Robertson went into the ditch, slewed violently, threw a tire and pulling the car back on the road, went careening off on the rim to a control.



WHERE THE CARS WERE PARKED BY THE COURSE

The eleventh lap saw two more cut down by the scythe of misfortune, Basle, Matheson, and Endicott, Cole. The former ran on a treacherous turn abreast of one of the Nationals and being on the outside went off the edge and slammed into a telegraph pole. The car emerged a mass of wreckage, and Basle escaped by the narrowest margin, being tossed over the barbed wire fence into

THE RACE FOR THE KANE COUNTY TROPHY, CONTESTANTS' TIMES BY LAPS AND TOTALS.

| Driver and Car | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 8 miles, 2,499 ft. | 16 miles, 4.998 ft. | 25 miles, 2,217 ft. | 33 miles. 4,716 ft. | 42 miles, 1,935 ft. | 50 miles, 4,434 ft. | 59 miles, 1,653 ft. | 67 miles, 4,152 ft. | 76 miles, 1,371 ft. | 84 miles, 3,870 ft. | 93 miles. 1,089 ft. | 101 miles, 3,588 ft. | 110 miles, 807 ft. | 118 miles, 3,306 ft. | 127 miles, 525 ft. | 135 miles. 3,024 ft. | 144 miles, 243 ft. | 152 miles, 2,742 ft. | 160 miles. 5,241 ft. | 169 miles, 2,460 ft. |
| D. Buck, Marmon | Elapsed time | 10:24 | 19:20 | 27:52 | 36:29 | 45:14 | 53:57 | 62:42 | 71:56 | 81:15 | 90:11 | 99:04 | 115:11 | 125:05 | 133:33 | 141:57 | 150:36 | 159:09 | 167:30 | 175:57 | 184:45.79 |
| | Lap time | | 8:56 | 8:32 | 8:37 | 8:45 | 8:43 | 8:45 | 9:14 | 9:19 | 8:56 | 8:53 | 16:07 | 9:54 | 8:28 | 8:24 | 8:39 | 8:33 | 8:21 | 8:27 | 8:48.79 |
| A. Monsen, Marion | Elapsed time | 9:27 | 18:36 | 27:38 | 36:41 | 45:16 | 54:51 | 63:52 | 72:50 | 82:04 | 91:06 | 103:10 | 112:26 | 121:51 | 130:44 | 139:58 | 149:13 | 158:29 | 169:32 | 178:38 | 187:52.65 |
| | Lap time | | 9:09 | 9:02 | 9:03 | 8:35 | 9:35 | 9:01 | 8:58 | 9:14 | 9:02 | 12:04 | 9:16 | 9:25 | 8:53 | 9:14 | 9:15 | 9:16 | 11:03 | 9:06 | 9:14.65 |
| I. Heinemann, Marmon | Elapsed time | 10:11 | 18:53 | 27:35 | 36:24 | 45:10 | 54:34 | 63:51 | 73:14 | 82:36 | 91:22 | 114:22 | 126:17 | 137:23 | 146:05 | 154:39 | 163:10 | 172:42 | 181:20 | 190:16 | 199:20.27 |
| | Lap time | | 8:42 | 8:42 | 8:49 | 8:46 | 9:24 | 9:17 | 9:23 | 9:22 | 8:46 | 23:00 | 11:55 | 11:06 | 8:42 | 8:34 | 8:31 | 9:32 | 8:38 | 8:56 | 9:04.27 |
| A. Schillo, Overland | Elapsed time | 11:12 | 22:24 | 33:30 | 44:30 | 55:18 | 65:58 | 77:20 | 89:36 | 99:57 | 110:09 | 120:32 | 131:00 | 142:16 | 156:53 | 167:18 | 177:54 | 188:37 | 199:05 | 209:40 | 220:04.15 |
| | Lap time | | 11:12 | 11:06 | 11:00 | 10:48 | 10:40 | 11:22 | 12:16 | 10:21 | 10:12 | 10:23 | 10:28 | 11:16 | 14:37 | 10:25 | 10:36 | 10:43 | 10:28 | 10:35 | 10:24.15 |
| J. Matson, Corbin | Elapsed time | 8:39 | 25:06 | 33:35 | 42:24 | 50:57 | 67:15 | 76:03 | 84:53 | 97:46 | Broken shaft | | | | | | | | | | |
| | Lap time | | 16:27 | 8:29 | 8:49 | 8:33 | 16:18 | 8:48 | 8:50 | 12:53 | | | | | | | | | | | |
| G. Schoeneck, Kisselkar | Elapsed time | 10:24 | 20:48 | 30:40 | 40:34 | 50:18 | 60:02 | 69:52 | 79:47 | Wrecked | | | | | | | | | | | |
| | Lap time | | 10:24 | 9:52 | 9:54 | 9:44 | 9:44 | 9:50 | 9:55 | | | | | | | | | | | | |
| W. Fritzschke, Cino | Elapsed time | 9:44 | Ditched | | | | | | | | | | | | | | | | | | |

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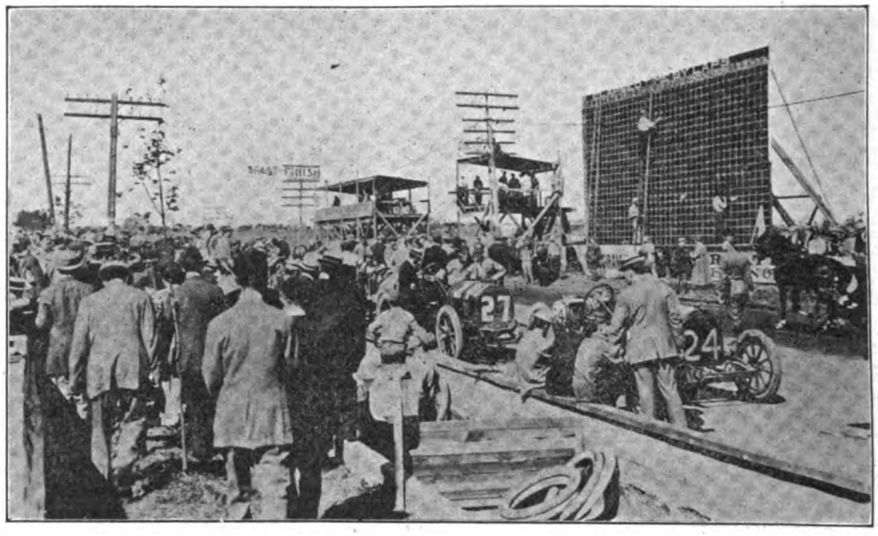
THE RACE FOR THE FOX RIVER TROPHY, CONTESTANTS' TIMES BY LAPS AND TOTALS.

| Driver and Car | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 8 miles, 2,499 ft. | 16 miles, 4,998 ft. | 25 miles, 2,217 ft. | 33 miles, 4,716 ft. | 42 miles, 1,935 ft. | 50 miles, 4,434 ft. | 59 miles, 1,653 ft. | 67 miles, 4,152 ft. | 76 miles, 1,371 ft. | 84 miles, 3,870 ft. | 93 miles, 1,089 ft. | 101 miles, 3,588 ft. | 110 miles, 807 ft. | 118 miles, 3,306 ft. | 127 miles, 525 ft. | 135 miles, 3,024 ft. |
| E. Hearne, Benz | Elapsed time | 9:31 | 18:41 | 27:55 | 37:12 | 46:50 | 56:41 | 65:52 | 75:06 | 84:23 | 93:52 | 103:22 | 112:41 | 122:05 | 131:25 | 141:01 | 150:40 |
| | Lap time | | 9:10 | 9:14 | 9:17 | 9:38 | 9:51 | 9:11 | 9:14 | 9:17 | 9:29 | 9:30 | 9:19 | 9:24 | 9:20 | 9:36 | 9:39 |
| A.W.Miller, Warren-Detroit | Elapsed time | 10:24 | 20:47 | 31:52 | 42:20 | 52:47 | 64:14 | 74:19 | 85:17 | 95:38 | 105:36 | 115:36 | 125:14 | 135:07 | 146:24 | 162:27 | 176:11.62 |
| | Lap time | | 10:23 | 11:05 | 10:28 | 10:27 | 11:27 | 10:05 | 10:58 | 10:21 | 9:58 | 10:00 | 9:38 | 9:53 | 11:17 | 16:03 | 13:44.62 |
| G. Monckmeier, Staver | Elapsed time | 10:59 | 37:36 | 46:48 | 56:45 | 66:35 | 76:27 | 87:55 | 98:53 | 108:32 | 118:17 | 129:04 | 140:53 | 150:06 | 160:51 | 171:05 | 181:05.57 |
| | Lap time | | 26:37 | 9:12 | 9:57 | 9:50 | 9:52 | 11:28 | 10:58 | 9:39 | 9:45 | 10:47 | 11:49 | 9:13 | 10:45 | 10:14 | 10:00.57 |
| N. Crane, Staver | Elapsed time | 10:34 | 20:52 | 31:18 | 41:43 | 52:09 | 62:43 | 73:18 | 83:33 | 93:56 | 104:22 | 114:32 | 128:39 | 139:48 | 150:10 | 160:40 | Disqualified |
| | Lap time | | 10:18 | 10:26 | 10:25 | 10:26 | 10:34 | 10:35 | 10:15 | 10:23 | 10:26 | 10:10 | 14:07 | 11:09 | 10:22 | 10:30 | |
| W. Endicott, Cole | Elapsed time | 10:22 | 20:10 | 29:43 | 39:26 | 49:10 | 58:47 | 68:19 | 78:02 | 87:38 | 97:17 | 106:57 | 116:40 | 126:19 | Radiator trouble | | |
| | Lap time | | 9:48 | 9:33 | 9:43 | 9:44 | 9:37 | 9:32 | 9:43 | 9:36 | 9:39 | 9:40 | 9:43 | 9:39 | | | |
| C. Cheney, Staver | Elapsed time | 9:58 | 21:26 | 31:12 | 46:07 | 67:08 | Broken oil lead | | | | | | | | | | |
| | Lap time | | 11:28 | 9:46 | 14:55 | 21:01 | | | | | | | | | | | |

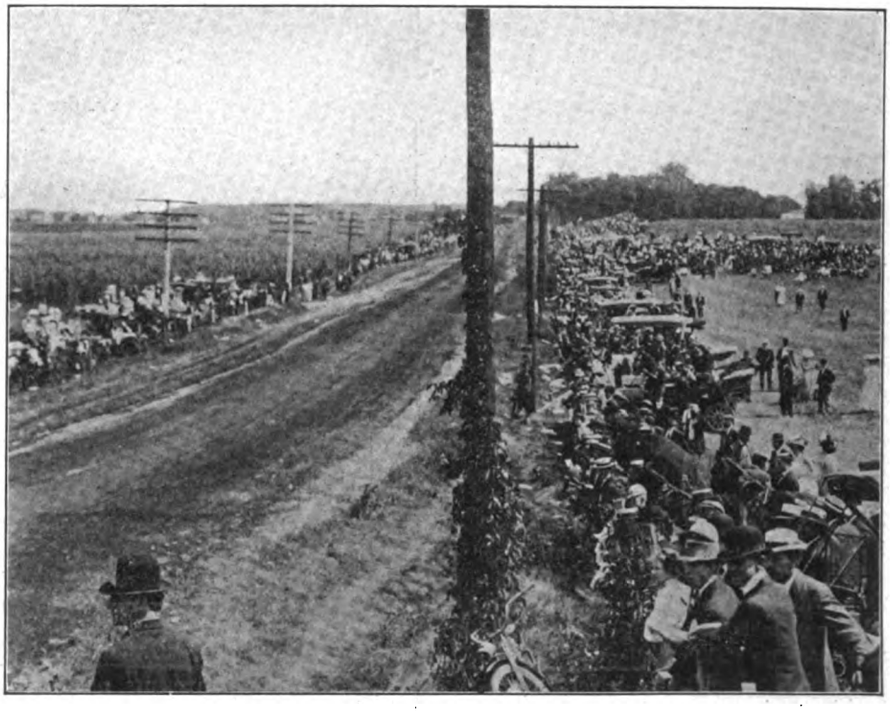
the field. Endicott, whose radiator was smashed by flying stones, had stopped to patch it, but soon after getting under way it commenced to leak like a sieve and he was forced out of the running.

Next to be cut down was Schiefler in the Jackson, who unwitting of Robertson's experience, took the Udina turn at a reckless clip. It proved his undoing, for he swept off the turn into the ditch, a wheel crumpled up, and the Jackson went down to rise no more. As usual the crew escaped miraculously. Things were sifting out rapidly, for some of the other promising ones also. Oldfield, from whom much was expected, had tire trouble, and minor difficulties, which necessitated numerous stops. Robertson continued to throw tires on every round.

On his twentieth circuit Mulford started a spurt and for the next few laps continued to accelerate, lap by lap, the sprint culminating in the twenty-second, when he girdled the course in 7:54, the record lap of the race. Fearful of what this cyclonic pace had done to his tires he stopped to inspect them in the twenty-third round, but they were in good shape, and after a moment's delay for oil and gas he was off again. Stinson in the Black Crow checked out in the twenty-second round on the fatal McLean turn by attempting to take it too fast. Into the ditch he went, a wheel gave way and the Black Crow was laid to rest.



AT THE START OF THE "MERRY-GO-ROUND"



WHERE THE PEOPLE WERE PACKED BY THE COURSE

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By this time the race had narrowed down to five, Mulford, Livingstone, Greiner, Robertson and Dawson. Oldfield and Saynor in the Simplex were still running, but experiencing so much trouble that they did not figure as possible winners. The five mentioned were well bunched and were cutting out a killing pace, Mulford still serenely holding the lead. The twenty-sixth lap saw the last hope of the Marmon dashed to earth, when Dawson, wrought up by his delays, threw caution to the winds and gave his car a full head on the treacherous back stretch where Grant had come to grief. It was not long before he met the same fate as the Alco pilot, a projecting rock throwing the car in the air and springing the frame. When it returned to earth the car shot across the road and over a ditch, finally bringing up in the soft turn by the road. Dawson was the last to be eliminated.

At this time Mulford had a lead of nearly ten minutes on Livingstone, and was whittling off the laps several seconds faster than he, while Greiner was holding down third by a safe margin. It became apparent that barring accident this would be the order of finish. Mulford drove the last lap in 8:05, and finished 11:41 ahead of Livingstone. There was a wait of over nine minutes before Greiner came thundering along and people began to wonder what had become of Robertson. It was known that he was considerably behind, and after a wait of 20 minutes more the bugles announced his coming. Immediately after he flashed under the wire the race was called. Oldfield still was on his thirty-first lap and Saynor in the Simplex was making his twenty-ninth.

## Elgin Races a Marvel of Management

Chicago and Elgin joining hands have demonstrated that they are amply able successfully to conduct a really big road race, or, rather, a series of races. It would be a captious critic who would pick flaws in the conduct of the affair of last Friday and Saturday, for the management was practically perfect and the results, financially as well as otherwise, more than satisfactory. A certain result is the making of the venture an annual affair, and already plans are under way to make it bigger and better next year.

Of the course itself opinions vary, but the times made, 62.5 miles per hour in the big race of Saturday over a distance of 305 miles, proves the course to be a fast one, and the accidents, numerous as they were, were not wholly attributable to the course, though the rough going did play havoc with a number of the machines, notably the Marmon entries, which were making their usual fine showing when misfortune overtook them the second day, after they had made a most auspicious opening on Friday. The National entries covered themselves with glory, winning the Illinois trophy on Friday and running second and third in the big Elgin trophy race on Saturday, and besides running away with the fastest round of the meet, the lap in 7:52 on Friday as against 7:54 for the fastest round of Saturday's winner.

The Matheson entry was put out of the big race by a most unusual and peculiar happening. After running strongly for a number of laps the brakes bound and the frictional heat created became so intense that it burned the spokes on the rear wheel inside to a point where they were smoldering, the onrush of cool air keeping the outside of the wheels comparatively cool, so that there was no visible indication of what was happening. Basle, the driver, "scrapping" with another car, took a turn at high speed, slammed on his brakes to get around, when the already weakened spokes let go. The wheel collapsed, ditching the car, though happily the driver and mechanician were not seriously injured, though hurled far from the car. Robertson with his big Simplex drove a valiant race, but tire troubles proved too great a handicap, and probably cost him the race.

On Friday, the opening day, the crowd, while naturally not anywhere near so large as Saturday's influx, saw some splendid racing. Incidentally they got the first taste of what the Illinois State Guardsmen do in the way of guarding a course, and what a revenue a far-seeing management, working in conjunction with the residents and property-holders and backed by the authorities, can extract from visitors. And this without creating the slightest friction or in any way "gouging." Rooms were clean, prices were uniform and fair and everyone was satisfied.

The policing of the course was perfect. The Illinois militia, smart and business-like in their brown service uniforms, were under orders to keep the course clear and prevent anyone from crossing it. The course was closed at 9:00 o'clock, one hour before the events began, and remained closed until they were over. The soldiers simply carried out orders and that was all there was to it. There was no argument, the man in uniform and a gun compelling a wholesome respect. At the same time if anyone had any real business to cross the course he was referred to an officer, all of whom were unfailingly courteous, and, if satisfied as to the sufficiency of the reason, the visitor was escorted across the course.

The discipline maintained was in striking contrast to that of the imitation soldiers of the last Vanderbilt cup race, where the guarding of the course was a miserable joke.

In these Elgin road races practically everybody who saw the races paid fifty cents to do it, and, if they came in cars, paid a uniform price of one dollar ($1) for parking space and fifty cents per passenger besides. This was accomplished by co-operation with the farmers, who were property holders, an association of 83 of them dividing one-third of the gate receipts.

The "admissions" were secured in an effective manner. All the roads leading to the course were closed about a half mile from it, and ticket booths placed at the closing points. Here the tickets were sold in the form of blue badges, which were required to be worn, so that if by any chance one slipped by the battery of tin-plate star wearers at the entrance he was held up and made to produce by relays of constables stationed all along the line. Grandstand tickets cost an additional dollar. Several of the parking proprietors announced that their receipts were all to be given to some worthy charity, and "lady checkers" at these places did a large business.

When a car was parked alongside the course it was parked for the day and was not allowed to leave until the races were over. This rule, like the others, was enforced, too. Altogether, the management was a revelation to the visitors who contrasted it with that of the big events of the East, and all were lost in its praise.

The small fly in the ointment was the action of several of the small towns between Chicago and Elgin, notably Maywood and Oak Park, where machines were compelled to crawl along at a snail's pace, dozens of drivers being hauled up and mulcted of $25 each for a speed of over 10 miles an hour.

The weather conditions were perfect, the races started promptly on time, and altogether the first Elgin road races may be writ down an unqualified success. Sanction for next year with the cordial approval of the A. A. A. officials present has already been applied for.

### Experts Disguise Stolen Motor Cars.

That a band of expert mechanics has been formed in Pittsburg, Pa., with the sole object of disguising and rebuilding automobiles, is the statement of Captain William Elmore, of the Pittsburg detective bureau. More than three hundred complaints have been received, and Captain Elmore sent his sleuths out with the rather big order: "Somewhere in this city there is an automobile counterfeiting plant, where stolen machines are taken to, made over to hide their identity and then put out and sold as new machines. Now go out and find it."

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## MUNSEYITES END THEIR TOUR

**Perfect Road Scores for Thirteen Cars—Walls Wins the Sweepstakes—Happenings Along the Way.**

Thirteen cars finished the Munsey tour with perfect scores insofar as road penalties were concerned, at Washington, last Saturday afternoon, 27th ult. They were then turned over to the technical committee, of which E. L. Ferguson, referee, is chairman, for an inspection, which consumed two days.

On Tuesday the awards were announced, the formal presentation being postponed 24 hours, in order to permit protests to be lodged. The sweepstakes prize was given to Harry E. Walls, Maxwell, penalized three points. The other winners:

Division 1A, selling under $800—D. E. McCoy, Brush; P. R. McKinney, Brush, second:

Division 2A, from $800 to $1,200—James Cherry, Ford; C. E. Miller, Ford, second; F. K. Peabody, Ford, third.

Division 3A, from $1,201 to $1,600—H. E. Walls, Maxwell; Tom Berger, Warren-Detroit, second; Roy Upton, Moon, third; Emery Kudson, Staver-Chicago; fourth, A. A. Miller, Crawford, fifth; Clarence La Mar, Great Western, sixth.

Division 4A, from $1,601 to $2,000—W. D. Arrison, Washington; A. A. Carter, Washington, second; Harry Frisch and H. C. Brown, Enger, third; Ross Henwood, Ohio, fourth; I. W. Dill and G. H. Covert, Inter-State, fifth; Louis Strang, Pierce Racine, sixth.

Division 5A, from $2,001 to $3,000—L. H. Shaab, Stoddard-Dayton; A. T. Bailey, Corbin, second; G. M. Bayner, Columbia, third; Walter Donnelly, Cino, fifth; C. C. Fairman, Kline, sixth.

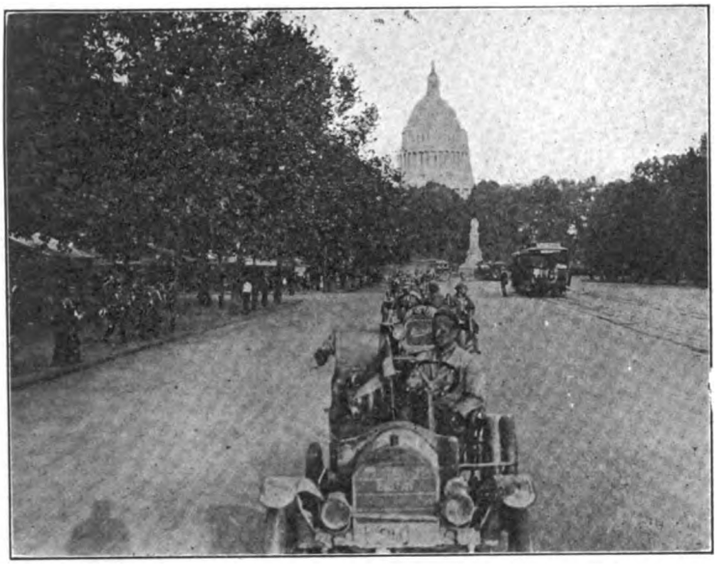
Division 6A, over $3,000—D. A. Hall, Matheson (only contestant).

The perfect road scores were: G. M. Wagner, Columbia; A. G. Carter, Washington; W. D. Arrison, Washington; Chas. E. Miller, Ford; A. T. Bailey, Corbin; D. E. McCoy, Brush; Harry F. Risch, Enger; Walter Donnelly, Cino; L. H. Shaab, Stoddard-Dayton; Harry E. Walls, Maxwell; C. C. Fairman, Kline; D. A. Hall, Matheson; James Cherry, Ford.

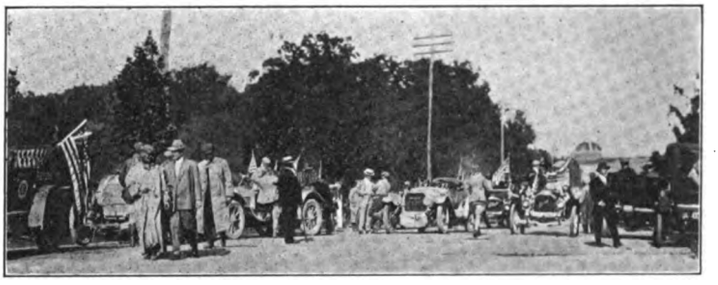
The eighth day of the journey was from Saratoga to Binghamton, 165 miles, with a noon stop at Cooperstown. It was a period of rather hard driving which brought the announcement that Clarence La Mar, Great Western, had been penalized 2,161 points, following the accident of two days earlier, near Montpelier, where the driver turned sharply and ran into a bridge to avoid striking a woman in a carriage. Another development was the withdrawal as a contestant of Kenneth Crittenden, Krit, because of the breaking of the steering spindle, which caught the left front wheel. The spokes were carried away and the axle bent. The trouble dated back to a street car collision in Portland. A wheelright was finally found, enabling the car to continue as a non-contestant.

The ninth day carried the party over 99 miles of rough hilly roads in Pennsylvania to Binghamton. There were two penalizations. Louis Strang, Pierce-Racine, received 30 points for repairing a gasolene pipe, and Ross Henwood, Ohio, was debited four points for being late at a noon control.

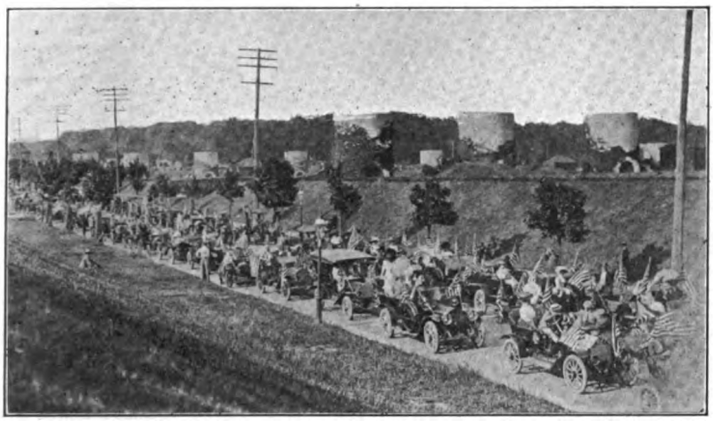
Harrisburg was the objective point on the tenth day, when speedometers regis-



MUNSEY TOURISTS ARRIVING AT WASHINGTON



ORGANIZING THE PARADE FOR TRIUMPHAL ENTRY



GENERAL VIEW OF ESCORTING DELEGATION




THE PROCESSION ON PENNSYLVANIA AVENUE

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tered 116 miles over the fairly satisfactory roads of the Susquehanna valley. Because of a spring, broken just outside Bloomsburg, A. W. Laroche withdrew the Regal Plugger as a contestant. Ross Henwood, Ohio, received five points additional, two for ignition and three for work on the carburetter, while the Pierce-Racine got 12 points more for the replacing of a spring bolt.

The noon check was Selin's Grove. Several members of the Harrisburg Automobile Club ran out from that city to do escort duty. In the evening the club gave a smoker and supper with souvenirs to the visitors.

The eleventh and last day's run of 160 miles, to Washington, was probably the hardest of all, because of the thick dust added to the rough going. Luncheon was served at Frederick, Md. Four penalties were imposed. Tom Berger, Warren-Detroit, was awarded 11 points for work on stay rod and magneto, and Clarence La Mar, Great Western, 66 points. The latter consisted of 21 points for being late at a control and 45 for a technicality. That car broke a spring soon after leaving Harrisburg, but ran through to Washington without repairs, where it was withdrawn. Ross Henwood, Ohio, got three points more for repairing a timing rod and Roy Upton, Moon, one point additional for an involuntary motor stop. Several of the cars went so far out of the way that they were reported lost. The Kline, for instance, traveled 20 miles out of the reckoning, but managed to get to the noon control without being late. and others were temporarily belated in consequence of a misunderstanding of the road directions on this part of route.

In order to prevent speeding into the National Capital cars were sent off in the order in which they were entered. Each driver was given a large card with the time he was due to arrive at the control marked on it in large letters. If an entrant coming up behind him wished to pass him and speed ahead of him he showed his cardboard to the following automobile. If the car wishing to pass was not due ahead of the man in front he was not allowed to pass.

Tom Berger, Warren-Detroit, 15 points; A. S. Hardart, Elmore, disqualified because stock model certificate was not filed; P. R. McKenney, Brush, 3 points; A. W. La Roche, Regal Plugger, withdrawn as contestant; Louis Strang, Pierce-Racine, 42 points; Clarence La Mar, Great Western, 2,227 points, withdrawn as contestant; Kenneth Crittenden, Krit, withdrawn as contestant; Ross Henwood, Ohio, 71 points; Emery Kudsen, Staver-Chicago, 242 points; Maxwell runabout withdrawn as contestant; A. A. Miller, Crawford, 867 points; Fred. Cassell, Glide, withdrawn; I. W. Dill and G. H. Covert, Inter-State, 111 points; Roy Upton, Moon, 3 points; F. H. Peabody, Ford, 8 points.

## BALL TRIUMPHANT AT CHEYENNE

**Captures 200 Miles Contest on the Four Miles Speedway—Corkhill and McMillen Receive Honors.**

Apperson Jackrabbits took first and second prizes last week in the 200 miles automobile race over the Cheyenne (Wyo.) four mile speedway. Harry Ball, Denver, took first honors in a 55 horse power car, while J. C. Corkhill, of Denver, was next, although he completed only 160 miles. Ball's time was 2 hours, 58 minutes, 28 seconds, or 67.3 miles an hour. The referee was George H. Nagle, president of the Cheyenne Motor Club, who was largely responsible for the success of the affair. Ralph W. Smith, of Denver, acted as representative for the American Automobile Association.

Ball won a race in 1908 in Brighton, and two, this year, on the Overland track. His mechanician was James Allen, of Denver, who had never been in a race before. There were six starters. The first to drop out was Lisle Branson in the 30 horse power Buick. He withdrew at the end of 64 miles because of a broken fan. The 60 horse power Thomas Flyer, driven by James McDonald, of Denver, had three attacks of tire trouble, finally dropping out at the end of 104 miles, with a broken spring and wheel. McDonald made one four-mile lap in 3:18, and the first four miles (standing start) in 3:35.

Harold Brinker in the 45 horse power American completed 130 miles, finally developing a leaky radiator. Ten miles further on Eaton McMillen in the 40 horse power National succumbed to a magneto affection. He received third prize. The contest brought many fast laps and daring turns.

### Washingtonians Hold a Climb.

The Automobile Club of Washington had its first hill climb Tuesday, the 30th ult., at Randle Highlands when 6,000 persons saw excellent sport. The hill is nearly a mile long, with two turns, and has a grade of 15 per cent. It is popularly known as "Mount Dome," leading to the summer residence of Col. Arthur E. Randle, and is considered the steepest ascent in the District of Columbia. The weather proved ideal. The event was sanctioned by the American Automobile Association, R. B. Caverly being the referee. The summary:

Class A, Division 1A—Open to any gasolene stock cars selling for $800 and under—Won by Thomas W. Cadick, Krit; second, R. C. Wilson, Hupmobile; third, Jack Ray, Krit; fourth, Bert Robertson, Maxwell; time, 1:53⅗.

Class A, Division 2A—Open to any gasolene stock cars selling for $801 to $1,200—Won by Berges, Warren-Detroit; second, Chas. Miller, Ford; third, Howard Bauer, Oakland; fourth, Edwin J. Drake, Ford; time, 1:03⅘.

Class A, Division 3A—Open to any gasolene stock cars selling for $1,201 to $1,600—Won by Ward Angle, Buick; second, Theodore Barnes, Warren-Detroit; third, A. M. Llano, Petrel; time, 1:09⅘.

Class A, Division 4A—Open to any gasolene stock car selling for $1,601, to $2,000—Won by T. S. Johnson, Buick; second, Howard Bauer, Oakland; third, G. G. Hammer, Buick; fourth, James Orme, Apperson; fifth, Griffin Halstead, Buick; sixth, John J. Fister, Apperson; seventh, Edwin Hammerly; time, 1:02⅗.

Class A, Division 5A—Open to any gasolene stock car selling for $2,001 to $3,000—Won by W. B. McBurney, Matheson; second, R. A. Klock, Columbia; time, 1:03⅗.

Class A, Division 6A—Open to any gasolene stock car selling for $3,001 to $4,000—Won by A. D. Hall, Matheson; second, J. L. Lescault, Palmer-Singer; time, 0:58.

Free-for-all—Won by T. S. Johnson, Buick; second, W. B. McBurney, Matheson; third, J. L. Lescault, Palmer-Singer; time, 49½ seconds.

### Makes Ready for the Brighton Meet.

Dan J. Smith (et al.), who, temporarily at least, has superseded the Motor Racing Association as general purveyor of automobile racing at the Brighton Beach track. New York, is making a strong bid for public favor for his initial meet on the 3d and 5th inst. In addition to Oldfield, who will be seen in action in the metropolis for the first time in five years, George Robertson and other prominent local pilots, Smith also has secured Eddie Hearne, the Chicagoan, who won the Fox River trophy race, the little car event at the Elgin carnival last week. As an evidence of good faith Smith has deposited $1,900 with Chairman Butler, of the A. A. A. Contest Board, who will draw on this fund for the prizes on order of the referee. The meet has been given the sanction of the governing body, after the conclusion of the precautionary steps to insure the winning contestants receiving their prizes.

### Norristown Tries Calcium Chloride.

An innovation in the treatment of dirt tracks with dust laying preparations is being tried by the Norristown (Pa.) Automobile Club in preparing the Belmont track at Narbeth for its race meet on the 24th inst. Instead of following the usual method of sprinkling the course with oil, calcium chloride, which in exhaustive tests has proven superior to oil and is widely used abroad for road treatment, will be employed. In addition to its dust laying properties it is clean and odorless, while the dangerous skidding incidental to oiled courses are reduced by its use. The feature of the meet will be a match between Robertson and DePalma.

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## TWELVE IN GRAND FORKS TOUR

**Three Days' Jaunt of 322 Miles Proves Pleasant Throughout — Hospitalities Showered on the Participants.**

Three hundred and twenty-two miles were covered by the Grand Forks (N. D.) Automobile Club on its three days' run, 16th, 17th and 18th ult., which it is expected will hereafter be an annual affair. It was planned and carried out not as an endurance contest, but for the purpose of developing public sentiment in favor of good roads and to create a spirit of good fellowship among the automobilists of the State. Not one accident occurred. The Grand Forks Club, organized in 1904, is the oldest and largest in the State. The present officers are: W. L. Wilder, president; A. I. Widlund, secretary, and W. H. Kelsey, treasurer.

Twelve entrants, beside the repair car, driven by E. D. Hanson, comprised the party, each driven by its owner and carrying from two to four passengers. The participants were: Dr. L. L. Eckman, Velie; M. F. Murphy, Glide; S. S. Titus, Overland; J. M. Sturtevant, Buick; W. H. Witherstine, Maxwell; J. W. Ogren, Buick; A. I. Wilund, Winton; W. L. Wilder, Pope-Hartford; Fred. Haverland, Velie; Wm. Flynn, Kissel; W. H. Kelsey, Franklin; J. E. Sandlie, Overland, and E. D. Hanson. The course and distance covered each day was: Grand Forks to Walhalla, 103 miles; Walhalla to Devils Lake, 108 miles; Devils Lake to Grand Forks, 111 miles.

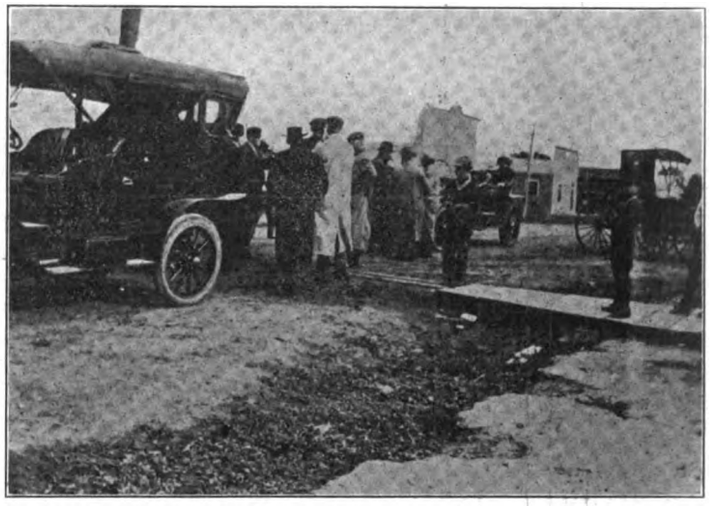
The route lay for the greater part over the broad North Dakota prairies, but for 40 miles passed through the peculiarly formed Pembina monutains—elevations that would be termed hills in a mountainous country—which afforded some climbing. The grades, however, were negotiated with ease. In fact, one 12 horse power runabout made the entire trip, preserving its place without trouble.

At Walhalla and Devil's Lake, where over-night stops were made, the local motorists and citizens arranged entertainments, which were especially appreciated by the women tourists. The dinner points at Grafton, Langdon and Lakota were rendered most agreeable by local hospitalities. Park River, Starkweather, Webster, Crary, Dayon, Minto, Petersburg, Larrimore, Michigan 'City, Langdon, Munich and Lakota tendered welcomes, several sending out delegations to act as pilots.

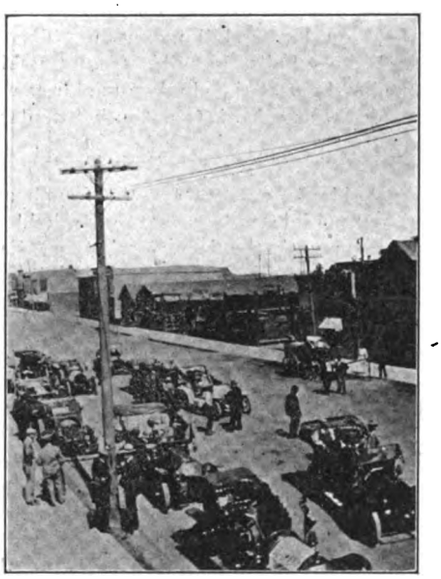
The beginning thus made in the conduct of automobile tours through the Northwest by the Grand Forks Club should serve to draw general attention to that region. A dozen routes may be laid out from Grand Forks, each covering from 600 to 1,000 miles, on which no grades exceeding 10 per cent. would be encountered. The only drawback is the uneven surface, and the Grand Forks Club has undertaken, with outside co-operation, to work an improvement along that line by advocating the use of the split log drag.



NIGHT CONTROL AT DEVIL'S LAKE



AN UNOFFICIAL HALT AT MOUNTAIN



NOON CONTROL AT PANGDON

**Census Man Approves of Motors.**

There has been a good deal of guess work in the many statements regarding the number of automobiles used on the farms, and it is therefore of value to have the testimony of an official census enumerator as to the abundance of automobiles in the agricultural district of Iowa. Guy Rankin, one of the Fort Dodge census takers, says the farm population is not so great as it was, but that the automobile is causing people to want to get back to the farm, now that they have a certain way of going to town whenever they please. The automobile therefore is becoming the most important factor in the rehabilitation of abandoned farm lands.

**Motor Car in His Bark's Davits.**

Carrying an automobile in her davits, the same as any other well-behaved ship carries her boats, the American bark Carrie Winslow entered New York Harbor a few days ago, causing no end of excitement by her unique equipment. It was said along the river front that the bark is the only vessel on the high seas, the finest passenger liners not excepted, which carries a touring car slung in her davits as a piece of auxiliary apparatus. The skipper, Captain Krum, unloads the motor car whenever he reaches port.

**Colleges Give Automobile Lessons.**

Automobile matters are now part of the curriculum of many of the larger agricultural colleges. Among them are the Iowa College at Des Moines, Iowa, and the Michigan Agricultural College at Lansing, Mich., which recently have added automobile instruction to their curriculum.

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## OMAHANS IN A TOUGH MUD PLUG

**First Annual Endurance Run Develops Hardships—Twenty of Twenty-two Starters Survive the Three Days.**

Plenty of mud, much gumbo and an abundance of cold weather were encountered by the participants in the first annual endurance run of the Omaha Motor Club, a three-day affair which ended Friday, the 26th inst. The first day proved the most troublesome. There were 22 starters, all but two of whom finished.

The first day's run was to Lincoln via Red Oak, Shenandoah, Hamburg, Ia., and Lincoln. The only incident of the day was the collision of E. H. Sprague's Chalmers with a cow, the owner of which happened to be hard by. The cars all reached Lincoln between 3:15 and 6:30 p. m. It was considered something of a joke that in the excitement of starting R. A. Doty in his Maxwell got away ahead of the pacemaker.

The second day's journey was from Lincoln to Kearney, via Crete and Hastings. Such good roads were found that the last competing car checked in at 5 p. m., the first one arriving more than two hours earlier. Kearney was the night stop of the Glidden tour of 1909 after leaving Omaha, so it was not the first invasion of tourists at that place, at which approximately 370 miles had been covered.

The third and last day called for about 250 miles, the route including Grand Island, Central City, Columbus and Fremont. At Columbus the Frayer-Miller Teuton truck met with a minor break and so laid up for the night. The first car to reach Omaha was driven interchangeably by Ed Mockett and C. A. Sadler; a White, which was checked in at 4:23 p. m., by President Ole Hibner, of the local motor club; next were Guy L. Smith and B. C. Russel, in a Franklin, four minutes later. All but three contestants had reported by 6 o'clock and they arrived soon after.

The cars were parked and turned over the next morning to the technical committee, of which Otto C. Nestman was chairman, and which, as usual in such cases, reserved its decision for the time being. The entrants that retired were Fay Knott, Cole, owing to a broken steering knuckle, and E. H. Sprague and John Parkhurst, Chalmers, because of a broken axle.

The cars in their order of finish: E. A. Mocket and C. A. Sadler, White; Guy L. Smith and B. C. Russell, Franklin; A. B. Cameron, Buick; William Hall, Columbia; E. Silver, Velie; C. H. Carney and W. E. Nutting, Midland; H. E. Obderkirk, Buick; M. C. Duggan, Buick; Dr. D. C. Soucup and J. Rachman, Chalmers; H. E. Fredrickson, Chalmers; J. M. Monnich, Ford; Max Gottberg, Ford; Walter Smith and Frank Walker, Chalmers; A. L. Stahlew, Buick; L. E. Doty, Maxwell; C. B. Bogue, Kissel; A. Merrill, Stoddard Courier; W. F. Huffmann, Hupmobile; Miss Bessie Amos and Miss Chelsea Jones, Chalmers; R. A. Doty, Maxwell.

### Catskill Bonifaces Await the Tour.

Now that the summer vacation season is waning, Catskill hostelkeepers are anxiously looking forward to the 10th and 12th inst., when their good friend, the Motor Contest Association, will endeavor to conduct his postponed Catskill reliability run and hillclimb, which, originally was set for July 16 to 18. It was put by owing to the "unfortunate absence of several New York tradesmen who wished to enter, and who were on their vacations," and the "difficulty of several dealers to get 1911 models, which they wished to enter, in time," but now that these drawbacks have been dissipated, it is hoped that the trade will respond generously with entries, as it usually does, and incidentally bring along well filled wallets in order to leave pleasant memories with the bonifaces. Prospects of good business for the innkeepers look promising already, for at the "urgent" request of "a number of motorists who are desirous of enjoying the pleasure side of the tour" the M. C. A. has added a non-contestants division. Starting from Edgewater, N. J., on Saturday morning, 10th inst., the tourists will make Catskill, N. Y., 127.5 miles, the first day. The day's run will be through Haverstraw, West Point, Newburg and Kingston, embracing a picturesque section which affords beautiful scenery. Sunday will be spent in viewing the scenery and absorbing mountain air, these pleasures being free, and on Monday the hillclimb will be held on Kaaterskill mountain. This is near Haines Falls, 15 miles from Catskill. Immediately after the climb a quick run will be made to New York to get in before dark.

### Syracuse Fair Offers Cash Purses.

Entry blanks are out for the fourth annual automobile race meet to be held in connection with the New York State Fair at the fair grounds, Syracuse, N. Y., on Saturday, 17th inst. Nine events are carded, the feature being a 10 miles open for stock cars under 450 cubic inches, which have been sold by Syracuse dealers and are driven by Syracuse owners. The winner of this race will receive a silver trophy valued at $200. Time trials also are billed, and an incentive for fast going is provided in the shape of $100 to the driver turning the mile under 50 seconds. The meet will be held under the joint auspices of the Syracuse Automobile Dealers' Association and the Syracuse Automobile Club, and C. Arthur Benjamin, will, as usual, act as stage manager. Robertson and DePalma are expected to be present, and among the officials will be Colonel Roosevelt and Lieutenant-Governor White.

## FUN IN ST. PAUL'S GUESSABILITY

**Tire Blow Out Helps the Mayor to Win First Prize—The Officials Perform Their Duties Without Worry.**

The first but not the last sociability tour of the Automobile Club of St. Paul was held Saturday, 27th ult., without fatalities. Mayor Keller was the winner of the first prize, of copper, thanks to a blow out on one of the tires on his car, which was No. 3, although he had asked to be given No. 13. By way of explanation it should be added that quick time wat not an element in the contest, the winner being, in fact, the best guesser, and the event, therefore, of the secret schedule variety. The official "answer" to all the contestants' guesses called for one hour and thirty minutes. The mayor's time was one hour, sixteen minutes.

The fastest time was made by W. C. McCurdy, 54 minutes, 25 seconds. During his Oley Barnfield demonstration he lost his hat, but even at that was not allowed a prize. The second prize went to Dr. W. D. Kelly. He received a cord of wood, which will go to some needy family or charitable institution. The other awards were cigars and candy. Mrs. Walter J. Hill received some of the latter because she was the only woman to drive her own car in the contest.

The affair was a burlesque on a reliability tour with all the bad features and not one of the good ones of the endurance contest. The start was made from a local hotel late in the afternoon, the objective point being the Anchorage, the summer home of the club at Lake St. Croix. The entry fee was fixed at the price of the table d' hote dinner, which was served to 150 persons, along with songs by a quartet. The officials, who had nothing to do, were: "PieLot," J. T. McMillan, Jr.; "Spacemaker," A. W. Lindeke; referee, Jesse Gregg; official timer, H. E. Bigelow; chief disturber, Charles W. Farnham; chief checker, George W .Woods; chairman contest committee, Theodore W. Griggs.

### Harding to Drive for U. S. Motor.

With the announced decision of the United States Motor Co., to maintain a contest team, Columbia, Maxwell and Stoddard-Dayton cars, which are made by its constituent companies, will be prominent contenders in all the big road and track events in future. Hugh Harding, the well-known driver, who has participated in the Gordon Bennett, Vanderbilt and other classics, will be the star of the team which will be under the guiding hand of Contest Manager Mortimer Reeves. Harding made his American debut in the 1906 Wilkesbarre hill climb, with a record for the course.

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## COLUMBIA HAS TWO NEW MODELS

**Thirty-eight Horsepower Car an Innovation—Mark 48 is Improved—Closed Front Bodies Predominate.**

In addition to producing its "Mark 48" car, which has been a distinct model since 1905, the Columbia Motor Car Co., Hartford, Conn., is to build hereafter a second and larger car to be known as "Mark 85." The announcement is doubly interesting because it comes from one of the oldest establishments in the industry and because it is the first declaration of policy made since the company was merged in the big enterprise of the United States Motor Co. Both cars are of the four cylinder variety and similar in many respects, their respective horsepowers being 32.4 and 38, by the accepted formula. Each will be turned out in a variety of body styles, both in open and closed conveyances.

In developing the new style carriage work the closed front form has been adhered to. But it is pointed out that this by no means is as novel a form for Columbia cars as it is for some others at this time, since it was standard equipment last year, and was first introduced fully two years ago. The bodies display distinct originality of line and are free from the crudity that sometimes is manifested in the draughting of the modern compromise between the torpedo and the stereotyped touring car.

In the mark 85 line are four and six passenger roadsters, a seven passenger touring car, and limousine and landaulet constructions. The general craftsmanship of the designs is plainly apparent from the accompanying illustrations, from which it will be seen that, while conforming to the same general principle, they have been worked out individually. The six passenger roadster is the distinct innovation of the series, being original with the Columbia designers. It is really an extension of the four passenger roadster, and it possesses the advantage, in certain respects, that the tonneau seats are removable so that, if necessary, the car may be used for carrying four passengers together with a considerable amount of small luggage, handily stowed inside the body.

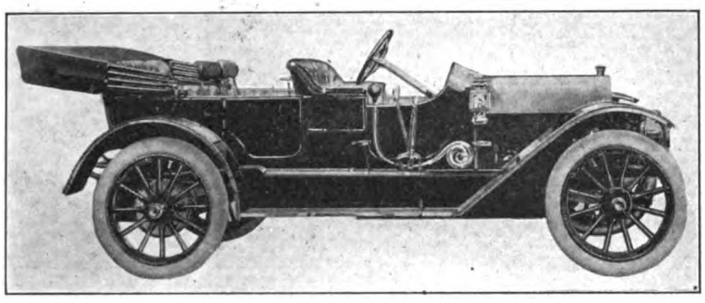
A radical feature, directly in line with the general movement among designers to remove from view necessary encumbrances is the manner in which the gas tank and tool box have been concealed. Instead of being brought down beneath and behind the running board brackets, the filler strip, which encloses the under structure and serves as a mud splasher, is carried out horizontally for a short distance and dropped vertically to the rear edge of the elongated step. The effect of this is to provide ample space under the frame sills for carrying the appurtenances referred to.

The mark 48 lot 5 cars likewise are equipped with closed front bodies, and likewise are produced in closed form for winter and general town service. The standard form accommodates five passengers. Their construction is the standard sheet metal with wood reinforcements.

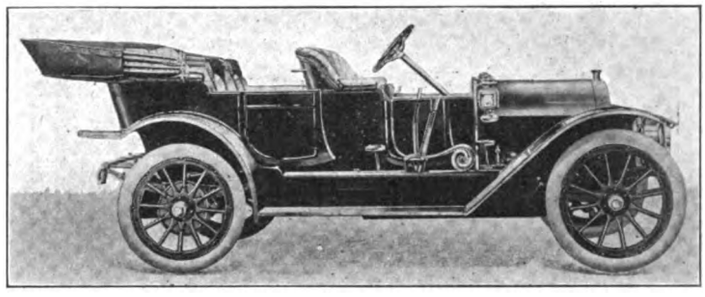
In the construction of the chassis for the new, and larger, car, several departures from former practice have been introduced. There are, for example, the T-head cylinders, cast in pairs with integral water jackets and large top cover plates, the latter being removable for inspection purposes. Also, there is the ignition system, in which the Bosch double arrangement is employed. This system permits the use of either high tension magneto or storage battery with two sets of plugs, and so complete is the independence of the two systems that either may be used independently of the other, or both simultaneously, according to the position of the lock switch.

The cylinder dimensions are 4⅞ by 5½ inches, bore and stroke. The motor is suspended from the frame by four hollow, square legs, through which extend breather pipes, for crank case ventilation, properly screened to keep out dust. The lubricating system employs a gear pump of 15 pounds pressure capacity, that forces the oil from a reservoir in the base through a distributing main, from which it is tapped off to the various bearings. The system includes a generous feed to the timing gears that takes the form of a continuous flow. All surplus oil is drained back to the base, to be filtered and used over again. A special lead to the dash enables the working of the system to be observed through the medium of a sight feed glass.

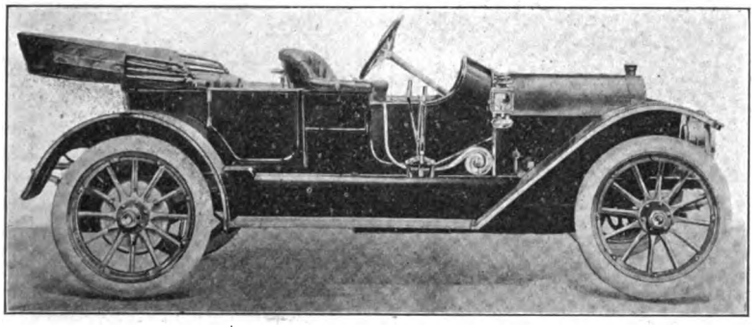
The master clutch is of the ordinary cone type, but instead of being leather-faced, as in former Columbia practice, it is covered with asbestos fabric, which enables it to seat readily and which is proof against charring as a result of overheating. This material has the added advantage that it is readily obtainable in case replacement of the friction surface becomes necessary. The linkage is powerful, so that light pres-



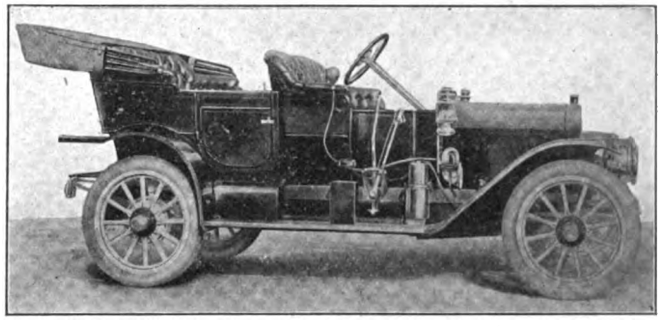
THE NEW SIX PASSENGER ROADSTER BODY



NEW COLUMBIA MARK 85 TOURING CAR



MARK 85 FOUR PASSENGER ROADSTER MODEL

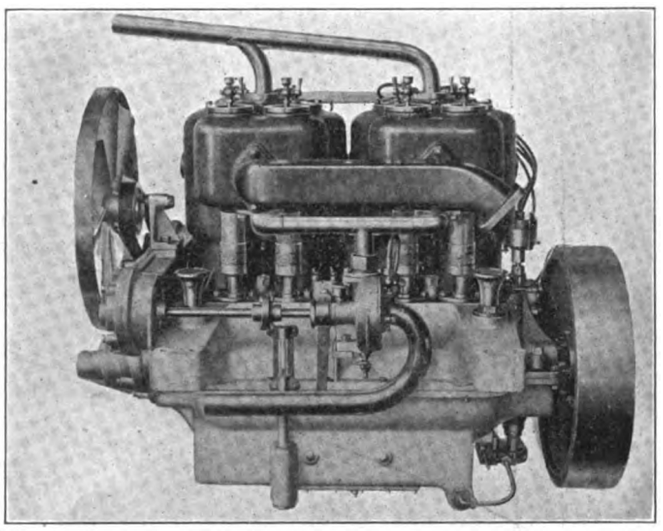


MARK 48-5 FIVE PASSENGER TOURING

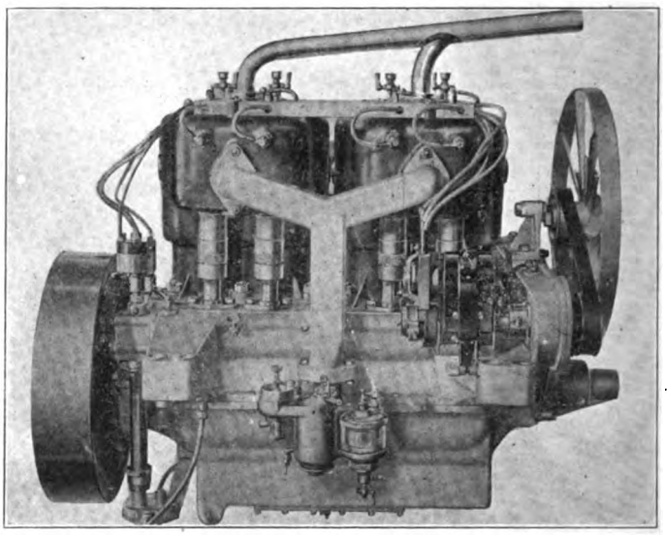
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sure is sufficient to control the car, while the pedals, which are of the disappearing type, are made adjustable.

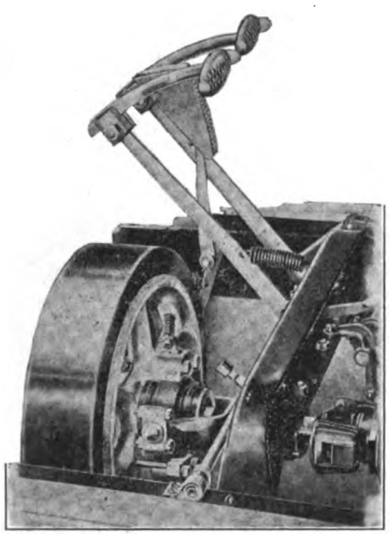
The change gear is of the same general pattern as has been in use on cars of this make for six or seven years. It affords three forward speeds, selectively obtained through the use of a gridiron segment, and is noteworthy for the short lengths of unsupported shaft, both in driving and lay members. The rear axle, of original design, is of the full floating type, mounted on Timken roller bearings, driving through dove-tailed hub flanges, and anchored to the chassis by torsion bars.



LEFT SIDE OF NEW COLUMBIA MOTOR



RIGHT SIDE SHOWING VALVE HOUSINGS



NEW CLUTCH ARRANGEMENT

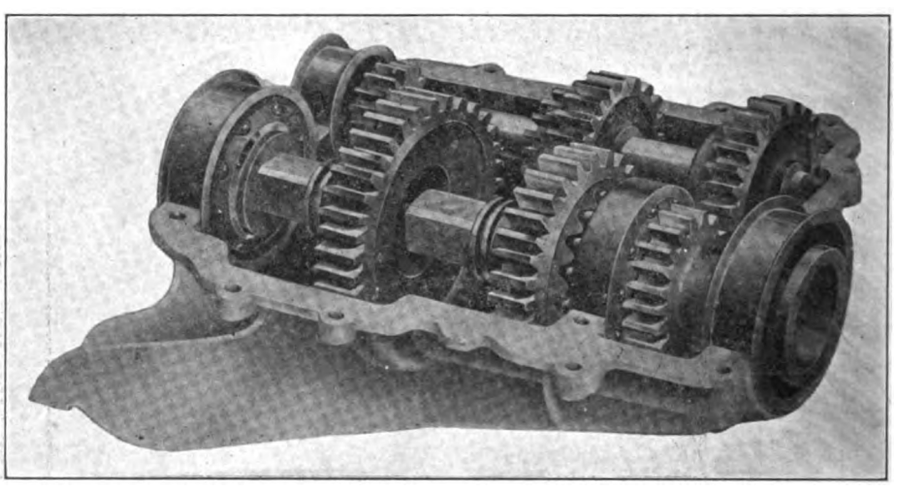
The differential and driven bevel gear and the driving pinion, with its roller bearing, form two separate and removable units.

The spring suspension is of the semi-elliptic order, and the frame is raised at the rear in order to give a very nearly straight line drive for the propeller shaft, and to reduce the amount of working in the universal joints, of which there are two, completely housed. The wheels are 36 inches in diameter, shod with 4-inch tires, on the four and six passenger cars, and 4½-inch tires on the seven passenger touring equipment and the closed cars. The wheel base is standardized at 120 inches.

The mark 48 lot 5 motor, as heretofore, has both sets of valves mounted on the same side, and is equipped with make and break ignition with Bosch magneto as regular equipment. It also has an added high tension system employing the Exide storage battery and single, non-vibrator coil with enclosed timer. As is true of the larger motor, the valve stems and springs are enclosed by a neat and practical housing. The pump for the automatic engine oiling system is driven by bevel gears from the rear end of the single cam shaft. The crank case compartments are constantly supplied by independent feeds, which are subject to individual adjustment from the outside of the engine.

Leather-faced cone clutch, with relieving springs introduced beneath the leather, selective sliding gear-set, multiple spline construction for the sliding joint of the propeller shaft, and full-floating, Timken-mounted rear axle, comprise other mechanical essentials of this machine. Save in one or two instances already noted, the chassis is much the same as heretofore. Its wheel base is 115 inches, and its wheels are 34 inches in diameter, shod with 4-inch tires.

The new car is fitted out with demountable, "Q.D." type rims, as a matter of standard equipment, and also a full set of shock absorbers. The inclusion in the list specifications of oil and gas lamps, with Prest-O-Lite tank, trunk rack, tire irons, tools and tire kit, in addition to the magneto, is common to all body equipments on both sizes of chassis.



COLUMBIA GEARSET SHOWING SOLID CONSTRUCTION

### To Emphasize Price of New Model.

The Nordyke & Marmon Co., Indianapolis, Ind., is anxious to have it clearly understood that the price of the new Marmon "32" car is $2,750, and not $2,700, as has been stated.

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## MAKES THE TIRE CHANGING EASY

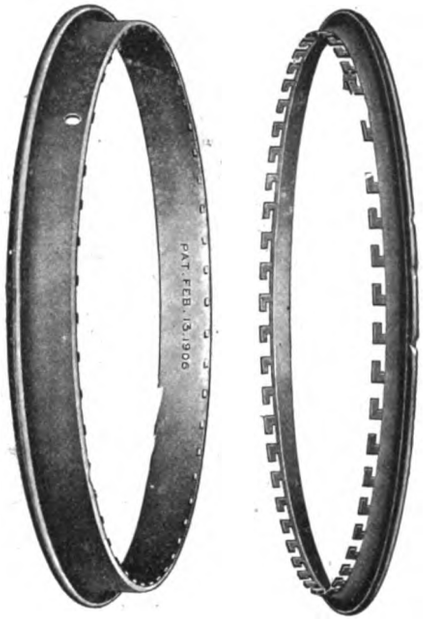
**Continental's New Gilbert Type Detachable Demountable Rim—Details of Its Construction.**

Demountable rims that, complete with tire, may be put on or taken off the wheel and that themselves are separable so that old tires readily may be taken out of them and new ones put in, without the tugging, manipulation and straining effort that occasionally is necessary with a plain clincher rim even when it is demountable from the wheel—all this is what is provided in the new Gilbert type Continental detachable demountable rims which have been brought out by the Continental Caoutchouc Co., of New York.

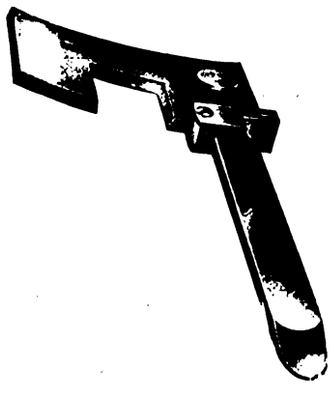
In making it possible for the whole rim and tire to be taken off the wheel in case the tire is punctured or injured and to replace with a rim carrying a fully inflated tire, the demountable rim system, as introduced a few years ago, afforded great relief in providing a means to minimize the work that might be necessary on the road, but where the demounted rim was of the plain clincher type, there still remained the bothersome task of gouging the deflated or injured tire from the rim itself in order to prepare it for future use with a new tire. This latter task is what the new Gilbert type rim simplifies. It does it by having the two sides of the clincher rim separable when the need arises, permitting the removal of one side and the easy lifting out of the tire.

The construction of the rim is shown in the accompanying illustration, the studs and fret work on the inner periphery of the two sides forming a complete locking system all around. They are engaged or released by the rotation of the two sides of the rim in relation to each other through a movement of about three-quarters of an inch. For this purpose a special tool is provided, shown in the lower illustration. When placed on the inner face of the rim, the notched plate of the tool fastens to the wider portion of the rim, while the handle part fits between studs on the narrower side, so that when the handle is moved the two sides are forced to rotate in opposite directions, either to engage each other or to disengage, according to which way the handle is pushed. When the two sides are united, after the putting in of a new tire, a small lock-block folds into a recess between the interlocking hooks and studs, making impossible any movement of the two in relation to each other and insuring a rim that in effect is as though it were of one piece.

In addition to being offered by its originators, the Continental company, the rim has been adopted by the United Rim Co., as the latter's "standard universal rim No. 3," from which it follows that it will be recommended and sold not only through the branches and agents of the Continental company, the Hartford Rubber Works Co., Morgan & Wright and the G & J Tire Co., but also by the Diamond Rubber Co., the B. F. Goodrich Co. and the Goodyear Tire & Rubber Co. It has been adopted as regu-




lar or partial equipment by over 20 makers of cars and will be supplied as an extra charge option by over six times that many other automobile manufacturers. Any type of tire, including clincher, quick detachable or Dunlop, may be used, rubber fillers in the clinch beads being employed for the



Dunlop type and valve spreaders on the tubes in the case of the Q. D. type.

**Band Brake Stops Fire Engines.**

In a recent test of the Duplex band brake, as used on the horse-drawn fire engines of Bridgeport, Conn., it was found that a pressure of but eight pounds on the pedal was sufficient to stop the heavy engine within its own length on the steepest hill in Bridgeport. The brake, which is made by the Royal Equipment Co., is the first band brake to be used on horse-drawn vehicles.

## OIL FILTERED AS IT CIRCULATES

**Al-Ton's System Operates on the Car—Self-Cleaning Crank Case Arrangement is Provided.**

A marked improvement in engine lubrication systems has been brought about during the last two or three years as a result of the adoption of automatic circulating systems, in which the oil is passed through strainers, after being used, and is not again returned to the bearings until it has been allowed opportunity to settle. That even this method is not capable of purifying the oil entirely, however, a moment's consideration will show; and in consequence there has recently been introduced a new oil-cleaning system which is designed for application to any motor, and which is intended to free the oil in circulation of certain classes of detritus which the ordinary straining process cannot remove.

The system in question is the invention of H. F. Maranville, for 20 years a large manufacturer of oil filtering and lubricating systems, and is produced and marketed by the Al-Ton Motor Accecssory Co., Akron, Ohio, under the name of the H. F. M. oil filtering and lubricating system. In principle, the system is merely a specialized application of methods which long have been in use in large systems where continuous circulation of oil is maintained for lubricating purposes. The filter itself is constructed in the form of an attachment, which may be applied to any motor which is equipped with a circulating system of oiling. In addition to this a special form of self-cleaning crank case has been devised, which is arranged to remove from the crank pit sediment of the heavier order, which ordinarily would not be carried through to the filter by the oil.

A large proportion of the automobile engines now in use are oiled by some form of circulating systems. Most of the systems in use have the advantage of providing a copious flow of lubricant and in that way tend to keep the bearings free from sediment and other foreign matter. At the same time, they possess a common defect in that the used oil constantly is returned to the main reservoir, so that during the service of the car, and between the rather infrequent periods of overhauling, there is a constantly accumulating mass of carbonized oil, dust, dirt, core sand and bits of metal which settles over the strainers and also permeates the oil to some extent.

The result is a higher rate of wear in the bearings than otherwise should be expected. The general effect is to reduce the efficiency of the oil and to charge it with an increasing proportion of impurities as time goes on, since the sediment is constantly accumulating, while fresh oil is

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added only in relatively small quantities. Obviously there is no remedy for this difficulty with the average system, save that of completely scouring the crank case and the entire oiling system at frequent intervals. The filtering system in question is devised to obviate this objectionable feature as far as possible.

Its general construction is shown by Fig. 1, which is a sectional view. As will readily be seen, the oil, after passing through the bearings, is raised to the top of the filter where it first passes through a fine screen, having a removable sediment

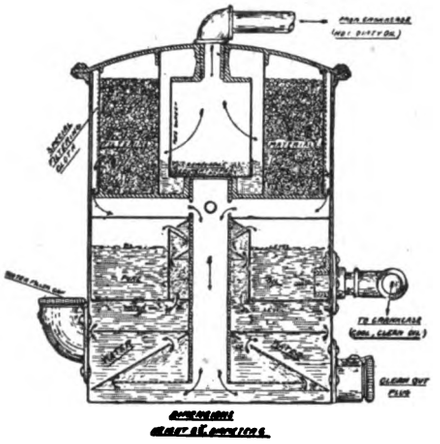


Fig. 1

cap at its base to facilitate cleaning; then through a cylinder filled with granulated bone black and a ply of special filtering cloth. It then flows down a central tube and through the water compartment, where it is washed perfectly clean and cooled and rises through a water separator and splash arrester into the pure oil reservoir, from which point it is returned by gravity to the crank case.

A simple method of mounting the arrangement on the front side of the dash board, and the manner in which it is connected into the ordinary oiling system, is indicated by Fig. 2. An alternate arrangement is that in which the filter is mounted alongside the cylinders, where the temperature of its contents always is held sufficiently high to prevent the oil from congealing even in very cold weather. The method of connection to the engine base, of course, is substantially the same in either case.

While this ararngement suffices to remove from the oil that is in circulation all impurities that would tend to abrade the bearing surfaces, there are some conditions under which it is not wholly adequate. In conducting experiments preparatory to completing the design of the filter it was found that, while the filter would remove the foreign matter from the oil passing through it, the design of many crank cases is such that there is practically no means of removing the heavier particles of sediment such as are very apt to accumulate. Besides tending to clog ports and ducts and so to interfere with the normal flow of the oil under the cranks, where splash is relied upon the tendency is to stir up the foreign matter and throw it against the cylinder walls. Hence the development of the self-cleaning crank case.

Figs. 3 and 4 show alternative arrangements for this purpose, in which provision is made for the settlement of the used oil

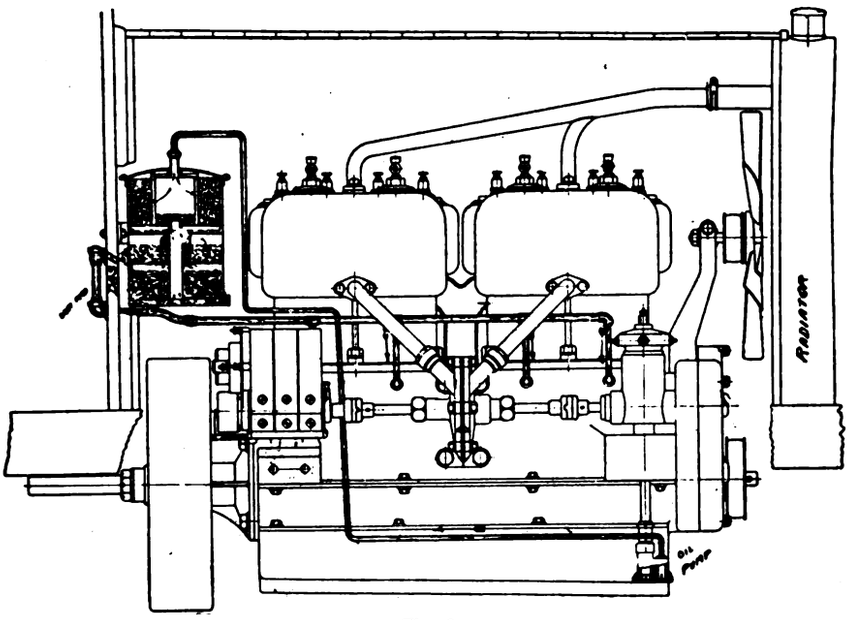



Fig. 2

before it leaves the case to be filtered, the heavy foreign matter being pocketed and permanently retained. By this means, all sediment not held in suspension in the oil is removed from circulation. The capacity of the sediment traps is such that even though they should not be cleaned out oftener than once a year the crank pits

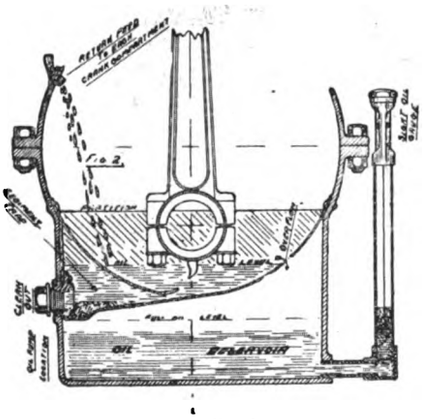



Fig. 3

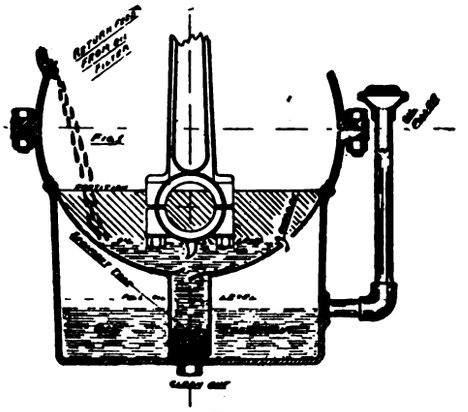


Fig. 4

would be kept free from impurities. The arrangement is designed to keep a constant level of oil in each compartment of the case, up to a 15 per cent. gradient in either direction.

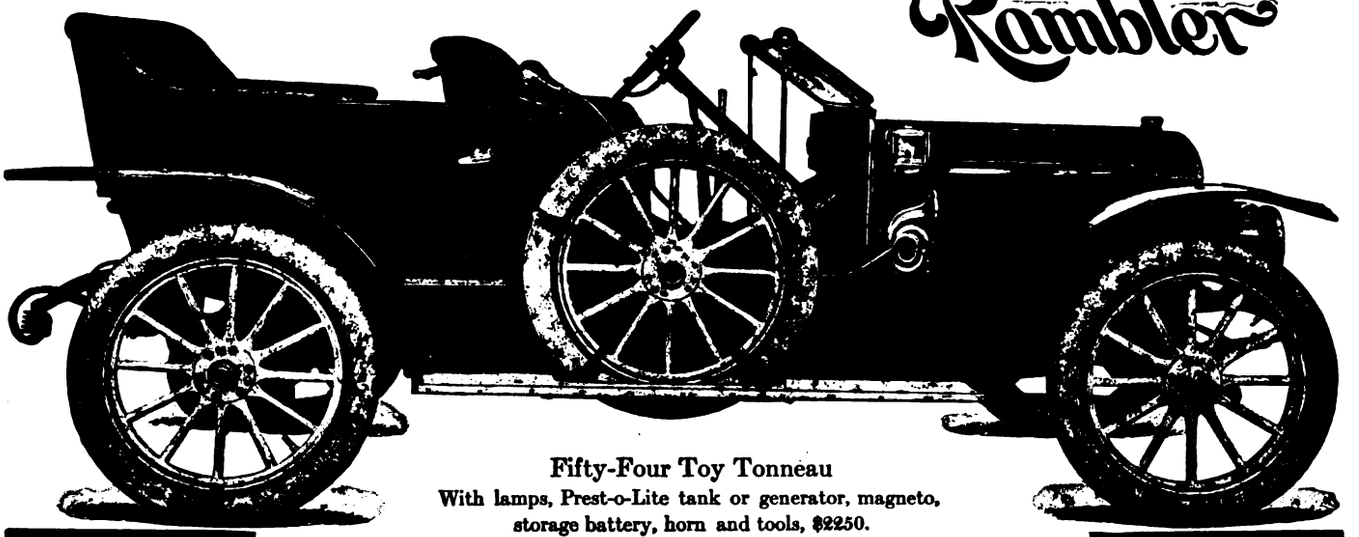
Either the filter or the self-cleaning crank case may be used independently, or the two may be applied in conjunction. Obviously neither should require any great amount of attention, while their use should more than repay the cost of installation, through the reduced oil consumption and the saving in bearing wear.

### Tire Data in a Wall Hanger.

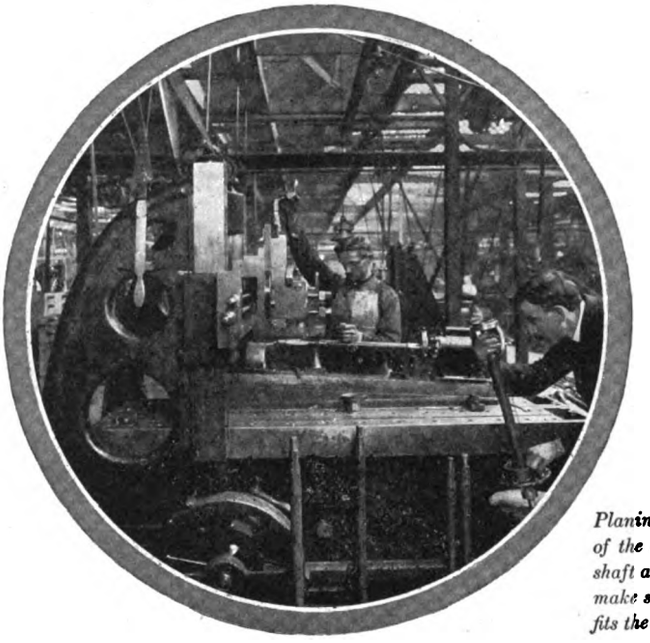
Tire information in plenty is provided in a wall hanger for garage display, which is being sent out by the Firestone Tire & Rubber Co., of Akron, Ohio, and copies of which may be obtained on request. The hanger not only illustrates and describes the various types of tires that are in use and the rims that they will fit, but also gives a list of tire sizes and the corresponding air pressures to which they should be inflated for the best results. Of special interest to motorists whose tires are not large enough for the load is a list of 11 oversize Firestone tires. These are interchangeable with standard size tires, but are built considerably heavier and contain from 30 to 50 per cent. more cushion of air, adding greatly to the easy riding of the car and in many instances reducing the ultimate tire cost.

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Rambler



**Fifty-Four Toy Tonneau**
**With lamps, Prest-o-Lite tank or generator, magneto, storage battery, horn and tools, $2250.**



*Planing the squared portion of the Rambler rear axle shaft and gauging it to make sure that it exactly fits the hub.*

Every Rambler part is finished with perfect accuracy and many special machines designed and made to suit Rambler needs are employed to insure quality. Inspection is complete at every stage and every part is gauged by an expert before being passed.

# The Thomas B. Jeffery Company

**Main Office and Factory, Kenosha, Wisconsin**

**Branches: Boston, Chicago, Milwaukee, Cleveland, San Francisco**

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## "TAXI'S" WITHOUT TAXIMETERS

**Inspectors Discover Many New York Motor Cabs Minus the Instruments—Two Driver Operation Forbidden.**

Although a "taxicab" is supposed to be a motor cab provided with a self-registering apparatus which shows the amount of the fare to be paid for its use, recent discoveries by the New York taximeter inspectors show that this by no means is an essential in the definition of the word. In other words, there are at present, and have been for some time, so-called "taxicabs" operating at the piers and ferries along West street, New York City, which have no meter or any other self-registering apparatus at all; the owners or drivers of which charge the regular four-seated cab fare ($1 per mile) instead of the 40 cents for the first half mile and 10 cents for every additional quarter mile, allowed under taxicab regulations.

A great number of complaints had been received from persons entering the city on Sound steamers and the Jersey railroads, and Inspectors Drennen and Bagley started an investigation. They discovered, in addition to a number of irregular and unstamped meters, that most of the "taxicabs" at the ferries were running without any meters at all. Nearly all of them are operated by hackmen who were driving horse cabs before the advent of the "taxi." The inspectors were powerless to stop the operation of these cabs, as they were licensed under what is known as the coach ordinance, which permits vehicles carrying four persons to charge at the rate of $1 for the first mile. As the "taxis" are able to seat four persons they come under the provisions of the ordinance.

Another irregularity which the inspectors discovered was of a different nature. It related to the seating of two drivers on the one taxicab. Inspector Drennen contends it is the two man taxis which are responsible for the crooked work occasionally said to be practised on the patrons of the taxis. One man operates the machine, while the driver operates the meter, which is said to be usually against the passenger. It is in this class of taxis, too, that many people have been run into lonesome streets and held up. The police have been instructed to prevent the operation of a taxicab having more than one driver on the box.

### Tags Tested by Hammer and Acid.

In contrast with the notoriously shabby license tags supplied to automobile owners in New York state are those furnished by Ohio to its motorists. Secretary of State Thompson, after hearing of New York's experience and having had some of his own with the tags used this year, which were not quite satisfactory, decided that next year's tags were to be worth the money paid for them. He therefore asked for public bids, and the samples submitted by five competing firms were subjected to rigid tests by experts.

The enameled plates were given a boiling water test, boiling acid test, and acid vapor test and an impact test.

The impact test was a succession of blows from a hammer weighing a kilogram. The first plate broke after 25 blows, the second after 40, the third after 50 and the fourth after 60. It took 100 blows to break the plate which was selected.

The contract was awarded to the Ingram-Richardson Manufacturing Company of Beaver Falls, Pa., at 31 cents a pair, which is two cents cheaper than the state paid for the tags at present in use.

Nobody has had the temerity so far to ask Mr. Koenig how much the New York tags cost to manufacture and how much the state paid for them. It is certain that no tag of the Empire State would have stood half a dozen blows from a hammer without losing most or all of its numbers and cracking in all directions.

### Tire Thieves Lose a Wagonload.

Alertness and a capacity for not being "bluffed" enabled Policeman English, of the Philadelphia force, to save $1,000 worth or more of tires for the garage of the Premier Motor Co., 2017 Sansom street, in the Quaner City, when he found two men with a horse and wagon loading tires into the vehicle at about 6 o'clock in the morning. The men already had diverted the suspicions of one passing citizens by speaking politely to him.

"It's pretty early for us to be working," said one of the thieves, "but our boss told us that it was necessary to get this stun to the other store before the customers got around."

When the officer came along, the man outside by the wagon started to give him the same "spiel," but the officer looked too forbidding. Making a dive into the store, the fellow warned his companion that a "cop" was outside, and the two made their escape through the back window of the store, pursued by the policeman. He was unable to catch them, but took possession of the wagon load of tires until the bona-fide garage employes arrived.

### Delaware Enjoys New York Privilege.

According to a ruling by Secretary of State Samuel Koenig, who bases the same upon the opinion recently handed down by Attorney-General O'Malley, only Delaware automobiles of those from all the eastern states can be run in New York State without procuring a New York State license. Western states which enjoy the same privilege are Illinois, Indiana, Iowa, Kentucky, Michigan, Nebraska, Ohio, Oregon, South Dakota, Utah, Washington and Wisconsin.

## TROLLEY MEN TO REPORT THEM

**Motorists Must Not Pass Street Cars at Speed in Connecticut or Massachusetts —States to Co-Operate.**

Owing to a number of accidents with automobiles which persisted in passing stationary electric cars at a speed greater than three miles an hour, the State Department of Connecticut has taken up the matter and has asked the co-operation of the trolley companies, in its endeavor to catch the offenders. In the very nature of things the motormen and conductors of trolley cars are the most likely people to take notice of such violations of traffic regulations, and the manager of the Connecticut Co., the largest of the trolley companies, has caused to be posted the following order to its employes:

"In the event of a conductor observing such a violation of the speed laws, the conductor must make a written report to the superintendent, giving the location, direcion the machine and car were going, the license number of the machine, estimate of the speed at which the machine was traveling and any other facts. Also get names and addresses of witnesses."

The Massachuetts authorities also have signified their intention of aiding Connecticut in suppressing this particular kind of speed violation, and ask that the Connecticut authorities render the same service to them when Connecticut drivers violate the speed regulations while within Massachusetts boundaries.

### Jersey Tags in Rah! Rah! Colors.

That university colors could be utilized for something else than provide an excuse for college yells, is a fact which J. B. R. Smith, commissioner of motor vehicles of the State of New Jersey, is endeavoring to prove. Having chosen orange and black, the colors of Princeton University, as the official license tag colors for 1910, he now announces cardinal and gray, the colors of Stevens Institute of Technology, as his choice for 1911, while 1912 cars will sport the scarlet of Rutgers College in combination with either white or black lettering.

### Maryland Grants Reciprocal Privilege.

Following the enactment of Pennsylvania's new automobile law, reciprocal relations have been established between that state and Maryland. State Highway Commissioner Joseph W. Hunter, of the Keystone State, has been informed by Governor Austin L. Crothers, of Maryland, that cars carrying Pennsylvania license tags may be operated in Maryland for periods not exceeding ten days without the requirement of special licenses.

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# MICHELIN



## TIRES WIN



### Elgin National Trophy, Distance 305 Miles

ELGIN, ILL., SATURDAY, AUGUST 27.

| | | | |
|---|---|---|---|
| **FIRST**— | Lozier, | Mulford. | Michelins **"As Usual."** |
| **Second**— | National, | Livingstone. | Michelins **"As Usual."** |
| **Third** — | National, | Greiner. | Michelins **"As Usual."** |

### Illinois Trophy, Distance 204 Miles

FRIDAY, AUGUST 26.

| | | | |
|---|---|---|---|
| **FIRST**— | National, | Livingstone. | Michelins **"As Usual."** |
| **Second**— | Falcar, | Pearce. | Michelins **"As Usual."** |
| **Third** — | Marmon, | Dawson. | Michelins **"As Usual."** |

### Kane County Trophy, Distance 170 Miles

FRIDAY, AUGUST 26.

| | | | |
|---|---|---|---|
| **FIRST**— | Marmon, | Buck. | Michelins **"As Usual."** |
| **Second**— | Marion, | Monson. | Michelins **"As Usual."** |
| **Third** — | Marmon, | Heinemann. | Michelins **"As Usual."** |

Mulford and Livingstone won the two long distance contests without a single tire change—another tribute to the speed and endurance of Michelins.

# MICHELIN

**MILLTOWN NEW JERSEY**


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## RECENT PATENTS.

964,007. Ignition Apparatus. Arthur E. England, Boston, Mass., assignor to Arthur A. Maxwell, trustee, Worcester, Mass. Filed May 22, 1907. Serial No. 375,042.

1. Ignition apparatus, comprising a casing; an induction coil therein; a series of insulating disks within the casing at one end of the coil; an exposed terminal supported thereby; connections to said terminal and to the casing from the coil terminals, comprising wires placed among the disks; and a circuit from said exposed terminal through a spark gap to the casing.

964,028. Spark Plug. Irwin Floyd Kepler, Akron, Ohio. Filed Dec. 10, 1908. Serial No. 466,866. Renewed Nov. 26, 1909. Serial No. 530,004.

1. A spark plug comprising a tubular body portion, an insulated binding pin arranged in said body portion, a terminal fastening cap arranged on the outer end of said plug, said cap comprising inner and outer adjustably connected sections, a clamping plate forming the outer end of said cap, and a spring to hold said clamping plate in engagement with the terminal of an electric conductor whereby said terminal is secured in electric contact with the end of said binding pin.

964,151. Runner. John R. Faber, Mount Pleasant, Mich. Original application filed Oct. 5, 1909. Serial No. 521,170. Divided and this application filed Jan. 21, 1910. Serial No. 539,231.

The combination of a runner, standards thereon, one standard having a rack, a block adapted to be fastened to the frame of the vehicle and slidable up and down between the standards, a crank shaft mounted on the block, and a worm on the shaft, engaging the rack to raise or lower the block when the shaft is turned.

964,152. Tire and Rim Lock. George J. Fanner, Cleveland, Ohio, assignor to The Fanner Mfg. Co., Cleveland, Ohio, a Corporation of Ohio. Filed Dec. 16, 1909. Serial No. 533,456.

1. In a vehicle wheel, a detachable rim, means for movably securing said rim to the felly of said wheel, said means comprising a toothed rack mounted on said felly and pivoted members adapted to be engaged by said toothed rack and to engage said rim.

964,281. Shock Absorber. George W. Bolton, Jr., Detroit, Mich. Filed Dec. 15, 1906. Serial No. 348,024.

1. A shock absorber, comprising a casing, a plunger therein having a lateral projection, a resilient member within the casing in the path of the plunger projection, and a yielding abutment intermediate the casing and the plunger end.

964,285. Roll Cage for Closed Journal Boxes. Charles S. Lockwood, Newark, N. J., assignor to Hyatt Roller Bearing Company, Harrison, N. J., a Corporation of New Jersey. Filed May 19, 1909. Serial No. 497,090.

1. The combination, with a roller bearing casing having flanges upon the ends adapted to wholly cover the rolls, at least one of such flanges having a central aperture for the passage of the shaft, of a rectangular skeleton roll-guide proportioned to pass through the shaft-aperture into the casing, and loose rolls adapted to fit loosely within such rectangular roll-guides.

964,286. Roller Bearing with Transversely Divided Rolls. Charles S. Lockwood, Newark, N. J., assignor to Hyatt Roller Bearing Company, Harrison, N. J., a Corporation of New Jersey. Filed Oct. 18, 1909. Serial No. 523,283.

In a roller bearing, the combination, with a cylindrical shaft and casing, of spirally wound tubular rolls fitted in lateral contact with one another and divided transversely into unequal sections intermediate the ends of the bearing, the roll-sections in the adjacent rolls breaking joints with one another, the two sections of each roll having their strands wound in opposite directions and the adjacent rolls having the strands of their continguous sections wound in opposite directions, whereby the roll-sections are held from lateral displacement and also distribute the oil as set forth.

964,308. Valve and Valve-Actuating Arrangement of Internal Combustion Engines. Samuel Isaac Parker, Teddington, England. Filed Sept. 17, 1909. Serial No. 518,209.

1. An internal combustion engine, comprising a piston member, an angularly displaceable controlling valve member, and means for displacing the valve upon the movement of the piston, said means including a cam-way formed in one member, and a projection movable in the cam-way and carried by the other member.

964,363. Automobile Tire Protector. Joseph G. Anthony, Detroit, Mich. Filed May 5, 1909. Serial No. 494,064.

In a device of the class described, a vehicle axle having a substantially L-shaped bracket secured thereto, a cushion-tired wheel mounted on the axle at one side of the bracket, a clamping bolt extending laterally from the bracket, a slotted member engaged with the clamping bolt for vertical sliding movement thereon, said member having an outwardly curved portion whose extremity is formed to provide a fork-shaped bearing, a roller mounted between the arms of the fork and disposed immediately above the wheel on the axle, and adjusting a screw mounted in the member to revolve therein and having its lower end engaged with the upper extremity of the bracket so that when the screw is operated the member can be moved vertically, and a protecting belt extending over the roller and partly around the cushion surface of the wheel.

964,387. Locking Device for Differential Gearings. William Lee Burnam, Kansas City, Mo. Filed Aug. 10, 1909. Serial No. 512,168.

1. Driving gearing for an automobile or the like, comprising a driven wheel having a casing like hub provided with extensions, axle sections on which the hub extensions are journaled, bevel gear wheels secured on the axle sections within the casing like hub, an intermediate bevel pinion carried by the said hub and in mesh on opposite sides with the said bevel gear wheels, and a sleeve mounted to slide on one of the hub extensions, and having locking means for engagement with the hub of the driven wheel and one of said bevel gear wheels.

964,409. Carburetter. James Clendennin Eckert, Stamford, Conn., administrator of Charles Fox, deceased. Filed April 17, 1908. Serial No. 427,722.

1. In a carburetter, the combination of a mixing chamber having an inlet, an outer casing containing an annular air port around said inlet, a hollow cylindrical valve body provided with a flange covering said port, and with a series of ports in its side walls, the said valve being adapted to be raised by suction within the mixing chamber and by its movement to admit air thereto through both its central bore and the ports in its side walls, as set forth.

964,410. Heater for Carburetters. James Clendennin Eckert, Stamford, Conn., administrator of Charles Fox, deceased. Original application filed Feb. 20, 1906. Serial No. 301,985. Divided and this application filed May 16, 1908. Serial No. 433,312.

1. A combined muffler and heater for internal combustion engines comprising a plurality of spaced concentric heat conducting metal walls arranged to form tortuous parallel passages bounded by said walls for air and for exhaust gases from said engine respectively and provided with an inlet and an outlet for said gases near the bottom of said heater, and partitions in the gas passages for directing the incoming gases toward the top of the apparatus.

964,413. Headlight. Charles Joseph Feiker, Racine, Wis. Filed May 21, 1909. Serial No. 497,472.

1. In a lamp for vehicles, the combination with a frame, an axle, steering wheels pivoted to the axle, and a transverse rod pivotally connecting said wheels, of a bearing upon the frame, a vertical rock shaft journaled in said bearing, a lamp mounted upon the upper end of said shaft, a crank arm on the lower end of the shaft provided with a downturned slotted link, a cushioning spring surrounding the shaft between the bearing and crank arm, and an operating rod coupled at one end to said connecting rod and provided at its free end with a friction roller engaging said slotted link.

964,427. Safety Attachment for Automobiles, Thomas B. Jeffery, Kenosha, Wis.; Kate E. Jeffery, Charles T. Jeffery and Harold W. Jeffery executors of said Thomas B. Jeffery, deceased. Filed Dec. 30, 1909. Serial No. 535,606.

1. In an automobile having an engine, a transmission shaft, a clutch between the engine and the transmission shaft, a starting crank for the engine movable between an operative position and an idle position, and means associated with said clutch for locking said crank in the idle position when the two members of the clutch are engaged with each other.

964,446. Reinforcement for Pneumatic Tires. Albert Linn Murray, Grand Rapids, Mich., assignor of one-half to Shawmut Tire Company, a Corporation of Massachusetts. Filed Nov. 27, 1908. Serial No. 464,576.

As a new article of manufacture, a tire repair device comprising a body portion composed of a plurality of layers of rubber coated fabric in a tense or stretched condition, and conforming in shape to the section of the tire, the inner layer of fabric being extended to form integral flexible flaps projecting from the opposite side edges of said body portion, substantially as described.

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965,189. Cooler for Automobiles. Arthur S. Hyde and Charles Gordon, Hartford, Conn., assignors to Whitlock Coil Pipe Company, West Hartford, Conn., a Corporation of Connecticut. Filed May 8, 1909. Serial No. 494,781.

1. In a cooler for automobiles, of the class described, upper and lower water chambers; a radiating section between said chambers comprising a series of vertical rectangular sections having their front and rear sides provided with openings for the passage of air transversely through said sections, and having vertical water channels communicating with the upper and lower water chambers.

965,331. Antiskid Tire. Harry G. Raflovich, Jersey City, N. J., assignor to Rubber B. B. Co., Bloomfield, N. J., a Corporation of New Jersey. Filed April 13, 1909. Serial No. 489,640.

1. In a tire, the combination with a body portion, of a plurality of fabric studs, and flexible flanges on said studs adapted to secure said studs to the body portion.

965,380. Spark Plug. Robert E. Estes and John B. Inman, Midland, Tex. Filed Dec. 22, 1909. Serial No. 534,537.

1. A spark plug including a plug base, an insulating core, an electrode pin extending entirely through the core and projecting beyond its inner end, separate and independent means for adjusting the core with relation to the plug base and for adjusting the electrode pin longitudinally through the core, and means for holding the core and pin locked in their adjusted positions.

965,478. Driving and Steering Mechanism for Vehicles. Daniel A. Miller, East St. Louis, Ill. Filed Sept. 23, 1909. Serial No. 519,162.

1. In a driving mechanism, a driving wheel comprising a central section connected to a driven member, an outer section that co-operates with a driving member, a plurality of intermediate sections arranged between said outer section and central section, pivotal connections between said sections, and a yielding connection between said outer section and central section that tends to hold said sections in alinement with each other.

965,484 Magneto Generator. La Verne W. Noyes, Chicago, Ill. Filed Jan. 27, 1910. Serial No. 540,343.

1. A magneto generator including a compound permanent magnet formed of laminae spaced apart near a polar end and having a pole piece terminating in spaced apart laminae; and a structure holding said pole piece, and outside of which the portion of the permanent magnet between its polar ends is located.

965,539. Automobile Wheel. Charles Rasmussen, New Haven, Conn., assignor of one-half to Paul W. Steinbeck, New Haven, Conn. Filed Dec. 18. 1909. Serial No. 533,785.

1. In an automobile wheel, the combination with the felly, tire and clincher rim thereof, of a series of rotatable locking cams carried by the felly and each cam having its inner face provided with a curved series of facets for engagement with the said rim.

965,551. Vehicle Lamp. Irving H. Atwood, Amesbury, Mass. Filed April 27, 1910. Serial No. 557,937.

1. In a lamp of the character described, a curved or C-shaped piece adapted to be supported horizontally in the lower portion of the casing or lantern of the lamp, said piece being provided with longitudinal slots and with slots connecting one end of said longitudinal slots with the lower edge of the piece and further provided with recesses extending from the slots connecting with the lower edge of the piece under the longitudinal slots, whereby substantially longitudinal tongues are formed integral with the piece and adapted to be pressel downward into said recess and to spring upward therefrom; and a font provided with studs adapted to be moved into the slots over the tongues, for the purpose set forth.

965,593. Rim of Wheels and Means for Temporarily Securing a Pneumatic Tire Thereto. Andre Michelin, Paris, France. Filed March 9, 1908. Serial No. 419,835.

A vehicle wheel rim constituting a seat for a tire and provided at one side with a tire retaining edge of greater diameter than the rim and at the other side with an annular channel of less diameter than the rim, an annular seat of greater diameter than the channel formed in the rim adjacent to the said channel and in a plane on the opposite side of the channel from the wheel, a ring fitted to removably engage said rim and the tire thereon, an annular seat in said ring of greater diameter than the wheel rim and lying in a plane intermediate of the planes of the channel and seat in the rim and an inextensible endless locking ring adapted to rest loosely in said channel when not in use and to engage both of said seats when in use for locking the tire on the rim.

965,605. Motor Vehicle. Jesse W. Sunderland, Oak Park, Ill., assignor to The T. J. Thorp Manufacturing Company, Corvallis, Ore., a Corporation of Oregon. Filed Aug. 26, 1907. Serial No. 390,098.

1. In a self-propelled vehicle the combination with a pair of front traction wheels, a pair of rear traction wheels, and steering mechanism, of a shaft geared to said front traction wheels, a shaft geared to both rear traction wheels, a motor, means for communicating motion from said shafts, a clutch interposed between said motor and said second-named shaft, and automatic clutch-releasing means operative to effect release of said clutch and thereby disconnect both rear traction wheels after said front traction wheels have been turned from a direct course through a predetermined angle.

965,607. Motor Vehicle. Thomas J. Thorp, Corvallis, Ore., assignor to T. J. Thorp Manufacturing Company, Corvallis, Ore., a Corporation of Oregon. Filed May 22, 1907. Serial No. 375,013. Renewed Feb. 26, 1910. Serial No. 546,261.

1. The combination of a front wheel, a front wheel frame supported thereon, a main frame having its front end swiveled on said wheel frame, wheels supporting the rear end of the main frame, a motor mounted on the main frame and having a shaft rotating in one direction, a counter shaft journaled on the main frame and geared to the motor shaft and rotating in an opposite direction, and a vertical shaft coaxial with the axis of said wheel frame and geared to said motor shaft and to said counter shaft.

965,626. Attachment for Automobile Engines. Orrin F. Griffin, New York, N. Y. Filed April 29, 1908. Serial No. 429,871.

1. In an engine, the combination with the cylinder, its valves, and valve stems, of lift rods for operating the valves, each rod being formed of disconnected sections, and means whereby one section of each rod may be moved out of alinement with the other section and the valve stem to render the valve inoperative.

"The A B C of Electricity." Price 50c. The Motor World Publishing Co., 154 Nassau Street, New York City.

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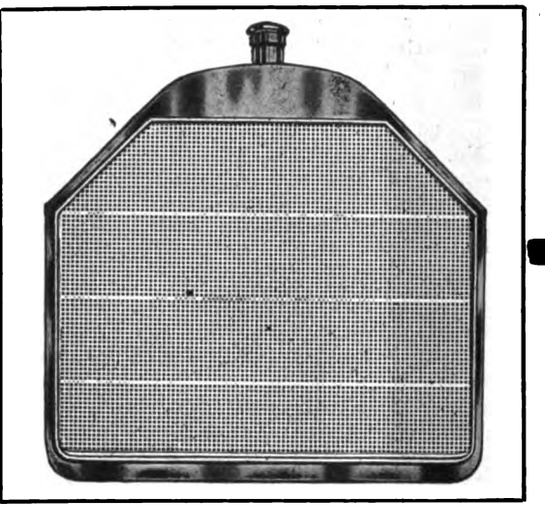
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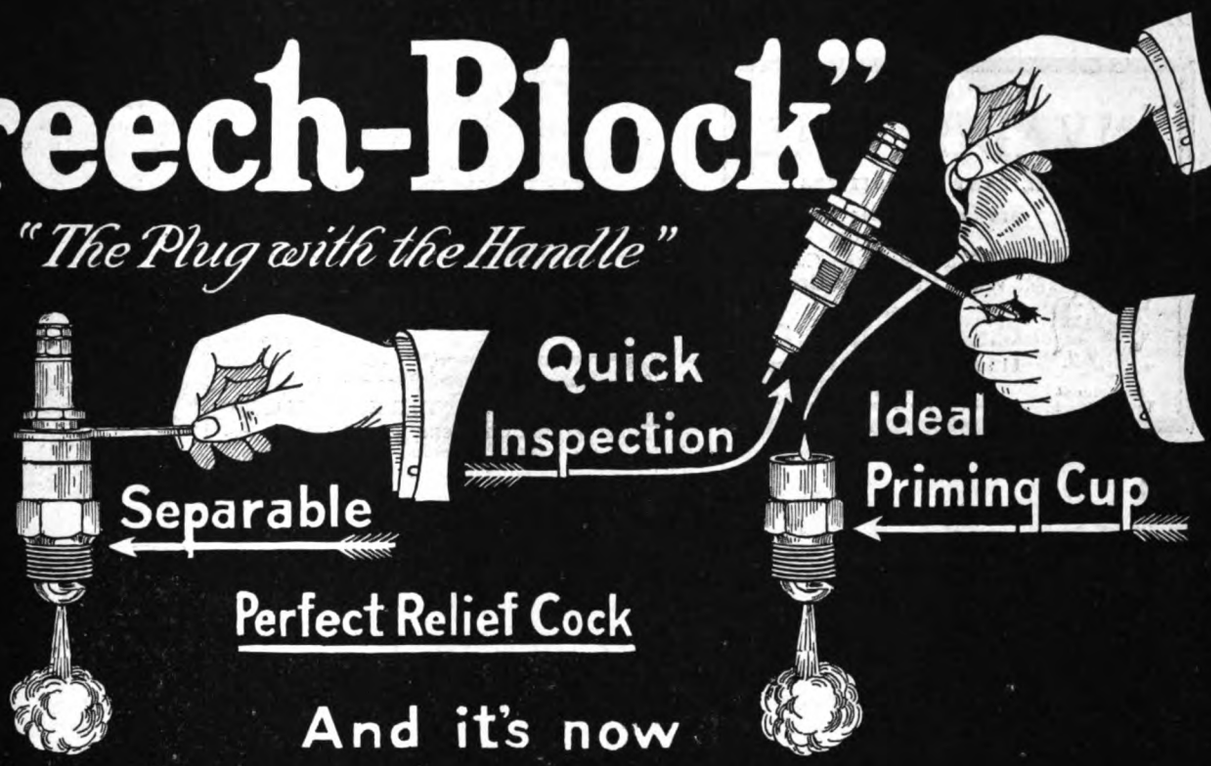
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| | Sept. 15, 1903 | |

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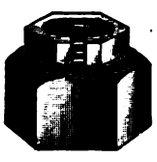
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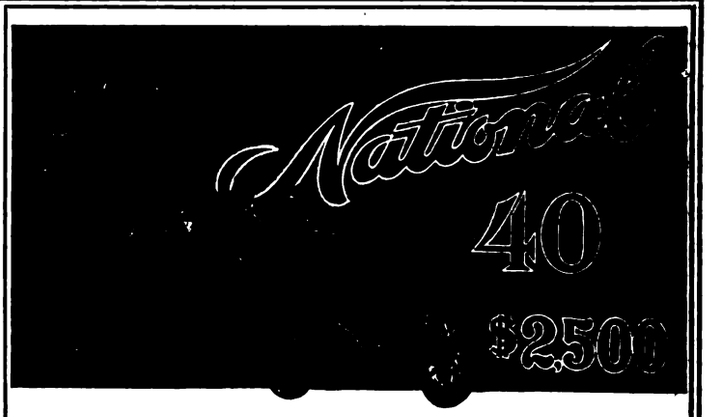
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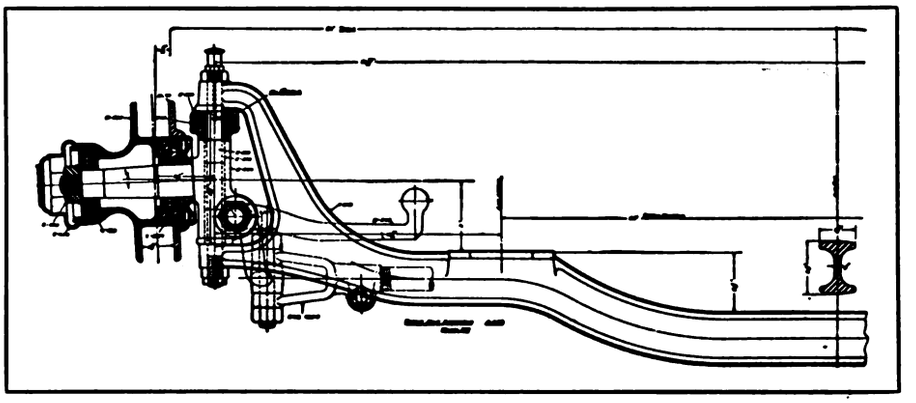
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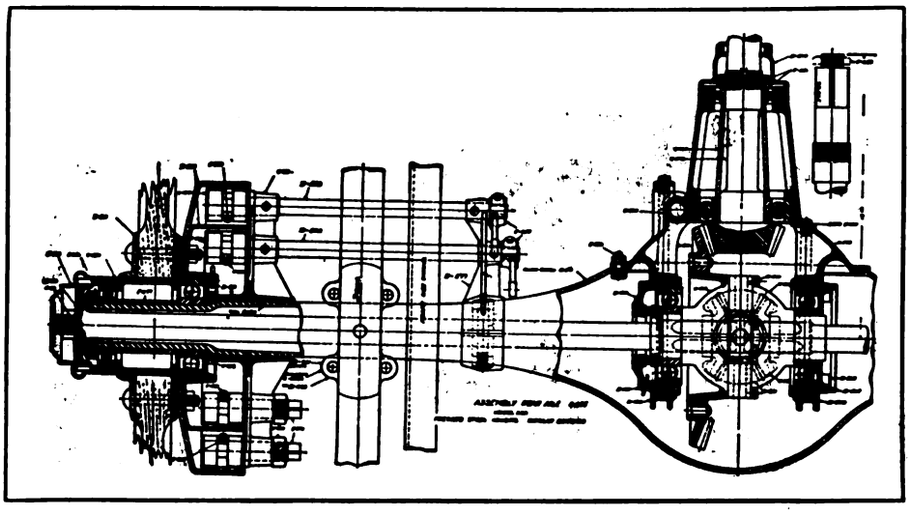


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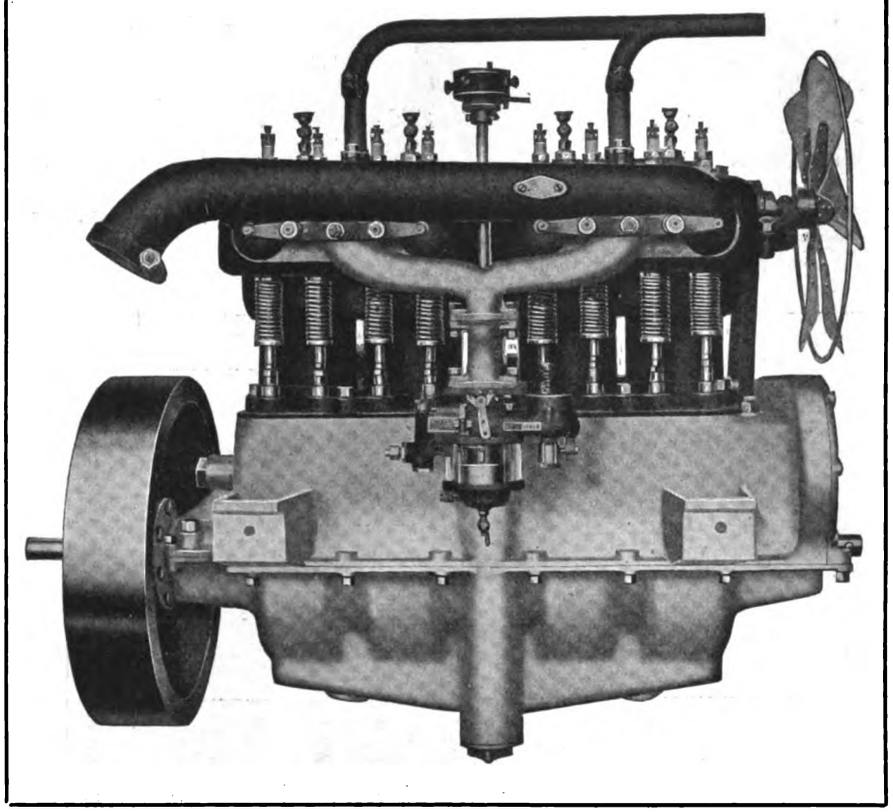
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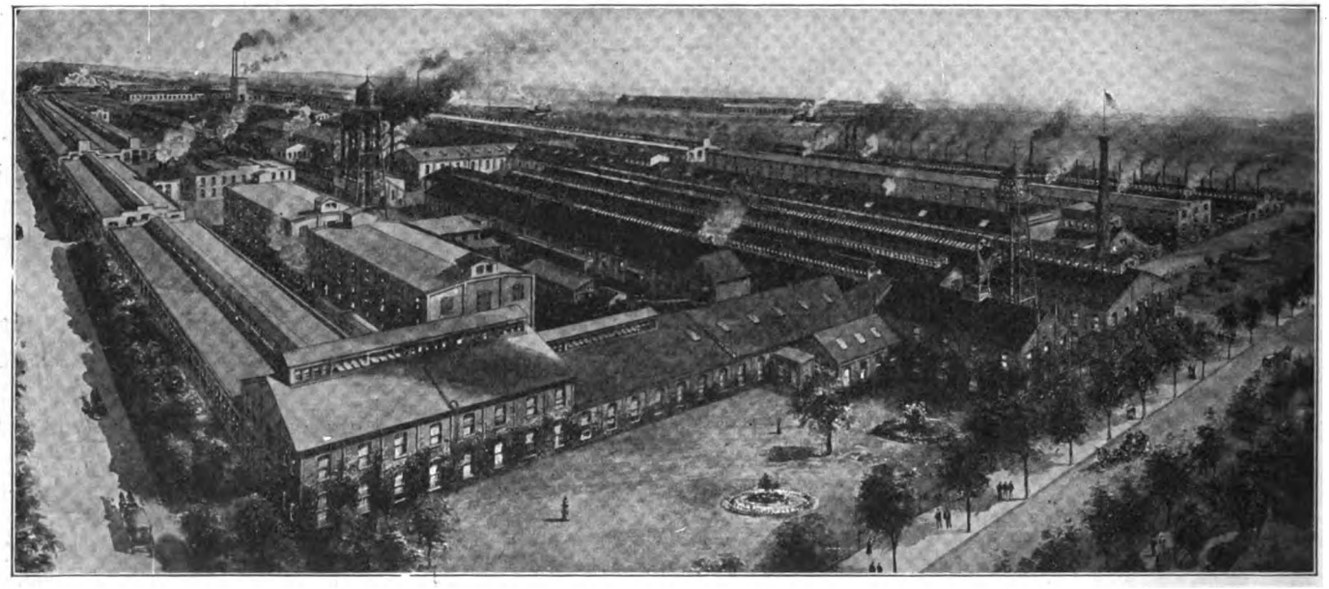
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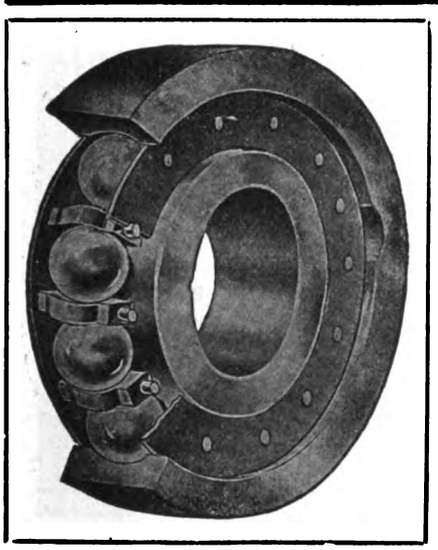
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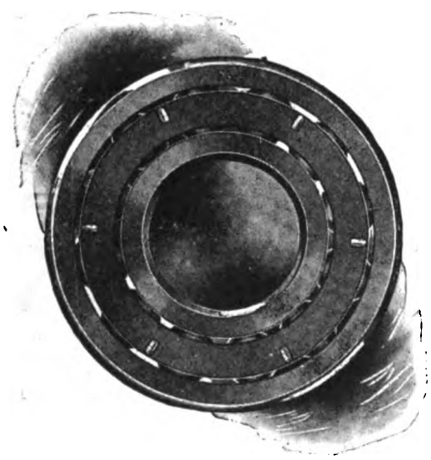

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The Dependable Quality of the

F & S

ANNULAR BALL BEARINGS

is emphasized by the following recent performances.

24-Hour Brighton Beach Race

The Stearns

made a new record of 1,253 miles, an average of 52⅛ miles per hour, beating the long standing old record by 57 miles (but which was also made on an F & S Annular Ball Bearing car, the famous LOZIER). Also made a new record for a single hour in a 24-hour race, of 57 miles, a 1,000-mile record of 19 hours, 6 minutes, and 48⅘ seconds, and new hourly records from the 11th to the 24th hour, inclusive.

¶ A MATHESON F & S Annular Ball Bearing car was a good second. A COLE CAR, also F & S equipped, was fourth.

¶ The STEARNS, like the LOZIER, is an F & S Annular Ball Bearing car all over, including the crankshaft bearings. The STURDY STEARNS had already run 40,000 miles before this race.

J. S. BRETZ COMPANY
Sole Importers
TIMES BUILDING. NEW YORK


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# Mr. Automobilist:

Your tire maker is very anxious to impress upon you the importance of

## Tires Inflated to the Right Pressure

He insists that this is tire economy and

## Saves You Money

How do you know what pressure you have in your tires?

# A Schrader Universal Tire Pressnre Gauge

(Trade Mark Registered in U. S, Patent Office)




(Patented March, 1898—Other Patents Pending)

will tell the exact pressure in your tires at any time, day or night, by simply holding this Gauge to your Valve for a second. Its recording sleeve remains in place, showing the exact pressure in the tire so that the Gauge can be taken anywhere and read, at night to the front of the car into the light of the lamps. After the pressure has been ascertained the Indicating Sleeve can be pushed back into the Gauge with your finger. No catches or snaps to operate or get out of order. This Gauge is 2½ inches long over all, short enough to apply easily to the smallest diameter of wheel and can easily be carried in the vest pocket or the change pocket of your trousers.

**Price $1.00 Each**
**Ready for Delivery Now**

## Guaranteed Simple and Absolutely Accurate

Can be obtained from all tire manufacturers, jobbers and dealers, or

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**28-32 Rose Street New York City**





## The KAMLEE Auto Trunk

is the only trunk for motorists that is made by motoring trunk-makers—who know what motorists need. It is built to conform to the shape of the tonneau of any make or type of car and is

**Absolutely Dust Proof and Rain Proof**

A leaflet giving full descriptions and prices will be forwarded on request.



**The KAMLEE Co.**
**345 Milwaukee Street**
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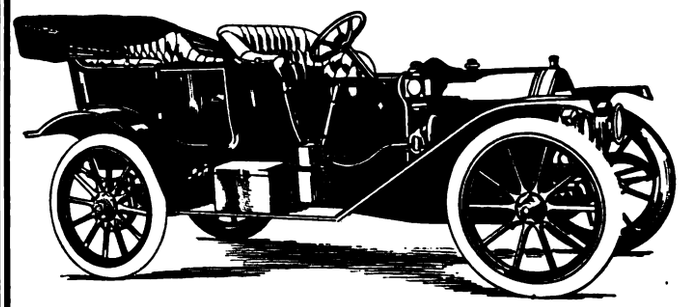
BRANCHES AT
New York.
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# LION "40"

## "RUNS LIKE SIXTY"



Five Passenger Touring Car, $1,700.

## The Greatest Car of the Greatest Century

Some desirable territory open to dealers making immediate application.

**LION MOTOR SALES CO.**
General Agents for United States and Canada.
650 Woodward Avenue Detroit, Mich.


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Whatever your present ignition system, there is a better one —and its basis is

**The New Edison Storage Battery**

The new Edison Storage Battery is now made in five and seven cell sizes for ignition of motor cars and motor boats.

The weight of the New Edison Storage Battery for ignition purposes is but 72% that of the lead battery of equal capacity. And while the lead battery is easily injured by overcharging, is subject to internal or automatic discharge, and is injured by standing idle in a discharged condition, the Edison is absolutely free from all these ills. The New Edison Storage Battery for ignition purposes is as far superior to the lead battery as the lead battery is superior to the dry cell.

The Edison gives a hot, blue spark like that of the high tension magneto, unfailingly igniting the weakest charge. But it has several advantages over the magneto system, the chief of which is that it is absolutely simple to install and maintain while the magneto requires the services of an expert, both to install and to put in order if it ever gets out of gear.

The New Edison Storage Battery ought to be part of the equipment on your car—or you should specify it on the car you are about to purchase. If your car is already equipped with the magneto system, you need the Edison as the basis of your auxiliary system. Write us today for full information.

**EDISON STORAGE BATTERY CO.**
**116 Lakeside Ave., Orange, N. J.**

**AVOID THIS**



**BY EQUIPPING YOUR CAR WITH "DUPLEX" BRAKE**

Many automobile accidents are due to faulty brakes—they failed in an emergency. What about your brakes? Don't, don't, don't take chances. Get a set of "Duplex" Brakes at once.

They act instantly—and they grip and hold with slightest pressure. They always work and they act when car goes forward or backward. Why not drop us a postal—ask us what a set of "Duplex" Brakes will cost for YOUR car. Avoid accidents—your protection lies in the "Duplex." Write to-day—NOW!

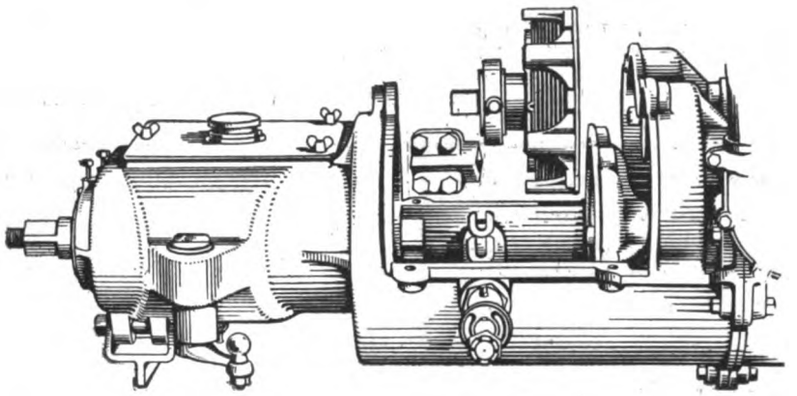
The Royal Equipment Co.
436 Housatonic Avenue
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# Stevens-Duryea

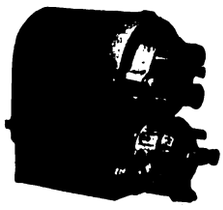
STEVENS-DURYEA PATENTED MULTIPLE DISC CLUTCH
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Convince yourself that our Multiple Disc Clutch is the One and Only One correct design of transmitting and releasing power of motor to transmission.

Our literature tells you all about it. Mailed for the asking.

STEVENS-DURYEA COMPANY
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## TRANSCONTINENTAL RECORD BROKEN

**The "4-30" Reo Equipped with a**

# Splitdorf Magneto

crosses the continent from New York to Frisco, 3554 miles, in 10 days, 15 hours and 13 minutes, lowering the World's Record 4 days and 11 hours.

When we consider the almost continuous running of the motor over mountains and all kinds of roads, and the many obstacles incidental to such a journey, this feat of the Reo reflects the greatest credit upon car, equipment and drivers, and stands out as

## A Truly Wonderful Performance

the accomplishment of which speaks volumes for the Perfect Ignition which made it possible.

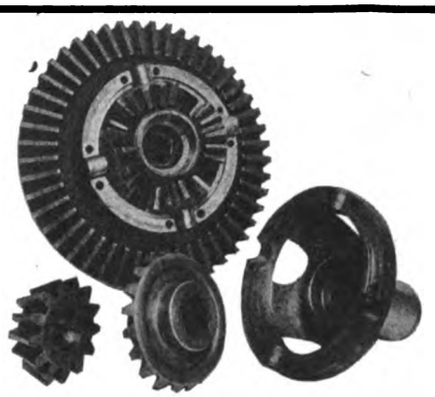
This is Actual Service of the most strenuous kind, and only serves to further prove the great Efficiency, Reliability and Endurance of the SPLITDORF Magneto.

*Ask for Magneto Catalog*

Chicago: 319 Michigan Ave.
San Francisco: 520 Van Ness Ave.
Detroit: 868 Woodward Ave.
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"VULCAN" Gears eliminate noise and all other gear troubles

# VULCAN GEAR WORKS

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**of All Kinds for Mechanical Purposes**

## AUTOMOBILE GEARS A SPECIALTY

**Send Drawings for Estimate**




**Price $1.00**

Made in all sizes. Mica and Porcelain interchangeable.

**Please Do Not Confuse**

## Auburn Ignition Spark Plugs

with similarly named, poorly constructed imitations. When you buy Spark Plugs please see that the words

**"THE AUBURN IGNITION PLUG"**

are stamped on the metal of the hexagonal nut, also on the porcelain. These words guarantee the plug fully, and assure you that you are receiving the original and genuine Auburn Ignition Plugs—plugs made in the largest factory devoted exclusively to plug making in the country.

The use of a similar name on a cheap and inferior product has forced us to give this notice to motorists, and to the trade in general:

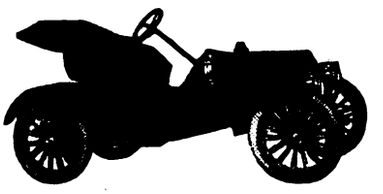
**AUBURN IGNITION SPARK PLUGS**—both mica and porcelain—are as superior a product as can be produced from the finest materials by the most up-to-date methods known to the manufacturing world.

Our reputation was made on them—our guarantee is back of them.

**Remember, please, that The Auburn Ignition Mfg. Co. is in no way connected with any other company previously in Auburn, N. Y., or now doing business in Auburn, N. Y.**

**THE AUBURN IGNITION MFG. COMPANY**

**Dept. J, Auburn, N. Y.**



## $485

## 1911 Metz Runabout

Fully assembled and completely equipped as shown at above price.

Sold exclusively through dealers.

We want good live dealers; those who believe in low price, economical cars and can sell them.

It will pay the wide awake dealer to get in touch with us.

**METZ COMPANY, Waltham, Mass.**

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*WOODWORTH TREADS* are the only true tire protectors. They never chafe or heat the tires. They are held in place by coil springs along the sides, which automatically take up all slack and prevent any looseness. The protector is always tight and smooth.

No other protector can be fitted in the way that these automatically fit themselves.

They fit all makes of tires—anyone can easily put them on. *Send for Catalogue.*

**Leather Tire Goods Co., Niagara Falls, N.Y.**

*Canadian trade supplied from Niagara Falls, Ont.*



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If the OWEN differed from other cars only in minor details, it would have small claim to the interest of experienced, discriminating motorists.

But the OWEN is distinct from other high-grade cars in the fact that it embodies more advanced ideas of motor car construction than all other 1911 models combined—it is literally "two years ahead of the times."

Because of its years-in-advance features making it a car actually without competition—because of the beauty of the lines—its superior qualities as a hill climber and hard roads car—because of the thorough familiarity of the motoring public with the OWEN as result of the exceptional advertising in national publications and demonstrations, the OWEN has exceptional advantages as a sales proposition that must strongly appeal to progressive dealers.

This company has an attractive proposition for the right kind of dealers in open territory. Ask for this proposition.

**OWEN MOTOR CAR COMPANY**

**1620 E. Grand Boulevard Detroit, Mich.**

## Ready for More Business

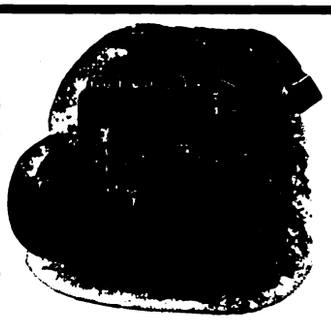
Increased facilities, new buildings, new machinery, enables us to make more motors.

**NOW IS YOUR TIME**

**Nothing better ever made than the Rutenber.**

Write for list of manufacturers using the Rutenber. Write for list of agents who say it sells the car. Write for personal testimonials, praising its power, speed, endurance and economy.

Latest improvements. Each motor carefully tested and fully guaranteed.



**4 x 4; 4 1-2 x 5; 4 3-4 x 5**

**Marion Indiana WESTERN MOTOR COMPANY Logansport Indiana**

Address all inquiries to Logansport, Indiana, Sales Department.


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More Power

Less Gasoline

Steady Pull




More Speed

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Less Vibration

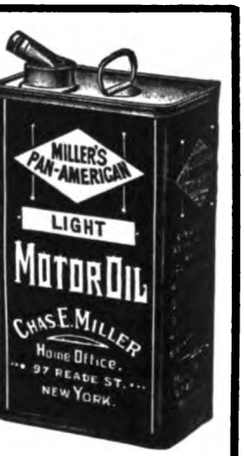
**MAKES A FOUR CYLINDER RUN LIKE A SIX CYLINDER ON THE GASOLINE CONSUMED BY A TWO CYLINDER**

**THE GREATEST SOIENTIFIO ADVANOE THE GASOLINE MOTOR WORLD HAS EVER KNOWN**
**WRITE FOR DESORIPTIVE MATTER NOW**

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MILLERS
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# MILLER'S
# Pan-American Motor Cylinder Oils

are refined from **the finest grade Pennsylvania** Crude and are pure, distilled, highly-filtered mineral oils. **Have a high fire test, low cold test and** not affected by climatic changes. **They are made in three grades** suitable for all types of water and air cooled **Motor Cars, Motor Boats and Motorcycles.** In order to convince you of the efficiency of these oils we are willing to make you a special price for an initial order, much lower than usually quoted on other high grade oils.

**WE HAVE HANDLED THIS OIL DURING THE PAST EIGHT YEARS AND DO NOT HESITATE TO RECOMMEND IT TO BE THE EQUAL OF ANY FIRST CLASS OIL ON THE MARKET.**

**Special Prioes for Manufacturers, Jobbers and Dealers**

**ADDRESS OIL DEPARTMENT**

**CHAS. E. MILLER,** MANUFACTURER, JOBBER, EXPORTER AND IMPORTER
**Home Office, 97-99-101 Reade St., New York City**

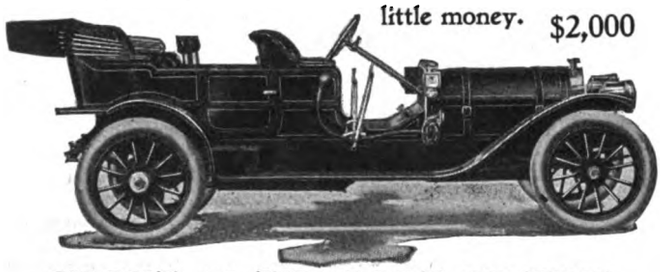
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**BRANCHES—Philadelphia, Boston, Cleveland, Detroit, Buffalo, Hartford, Atlanta, Brooklyn, New York City.**


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# Empire Tires
## WEAR LONGEST
EMPIRE TIRE CO., Trenton, N.J.

THE
# MITCHELL SIX
**The only six cylinder car in the world that sells for so little money.** **$2,000**



SILENT AS THE FOOT OF TIME

Specifications: MOTOR, 4½x5. TRANSMISSION, selective type. WHEELS, 36x4. WHEEL BASE, 130 inches. IGNITION, magneto and dry cells. Color, dark blue, cream running gear; option, dark maroon, cream running gear. TOOL BOXES, steel baked enamel. SEATING CAPACITY, seven passengers. STEERING WHEEL, natural finish. SPRINGS, platform type. BODY OPTIONS, seven-passenger touring car or close-coupled body. EQUIPMENT, oil lamps and horn, full tool equipment, including jack.

# MITCHELL

Licensed under Selden patent.

*F. O. B. Racine, Wis.* Racine, Wis., U. S. A.

# WETHERILL FINISHED CASTINGS

¶ Die cast from Parson's white brass make the finest kind of engine bearings.

¶ Absolutely accurate and every one interchangeable.

¶ We are now making 25,000 bearings per day, and increasing output as rapidly as possible. A case where quality is recognized and put to use.

**WETHERILL FINISHED CASTINGS COMPANY**
PHILADELPHIA, PA.

# HEAVY OIL "GUMS UP" MAGNETOS



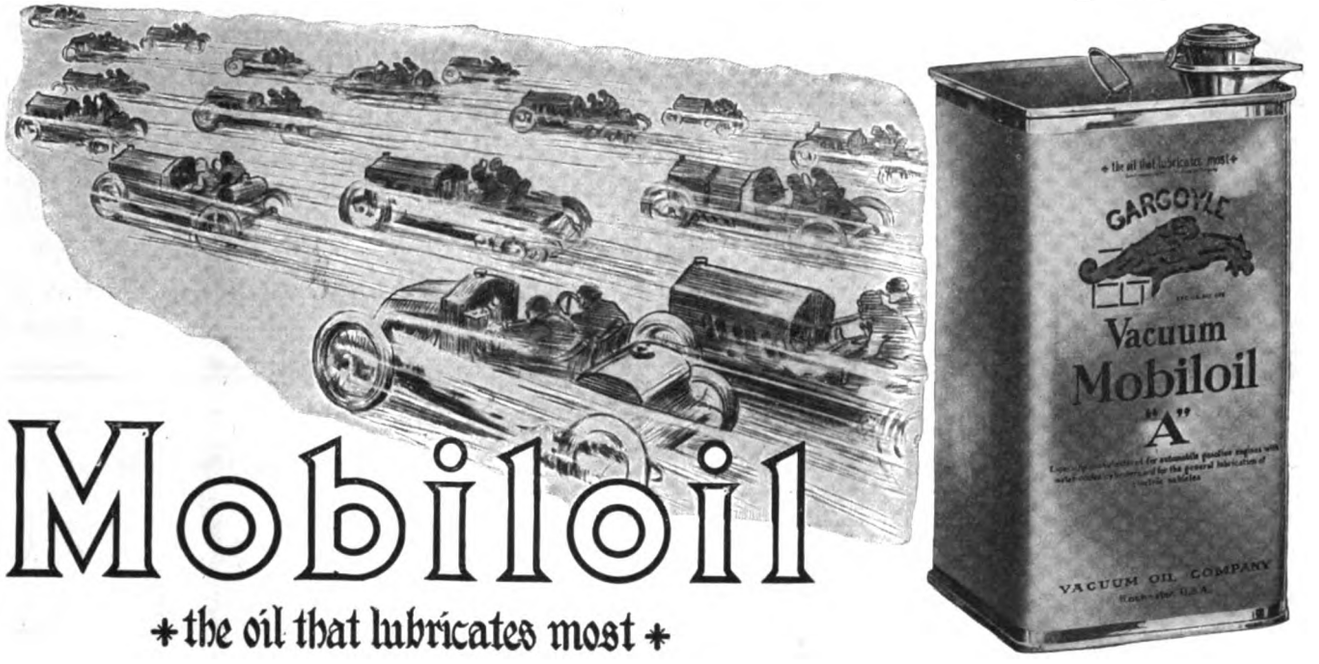
3-in-One is a clear oil compound and is absolutely the **only** successful magneto lubricant. It is so light that the best watch makers, scientific instrument concerns, speedometer manufacturers recommend it and **use it.** Yet it is just heavy enough to make the magneto run perfectly—without fault or falter. It can't harden, gum, dry out, collect grit, burn or smoke under any conditions or any speed. It polishes auto body and prevents rust on all the metal parts.

Automobile size, 8 oz. 50c. At garages, supply dealers and all good stores. Or—send for FREE SAMPLE. Let us stand the expense of PROVING its worth.

3 IN ONE OIL CO., 64 Broadway, New York.


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# THE REAL POWER BEHIND THE CAR




# Mobiloil

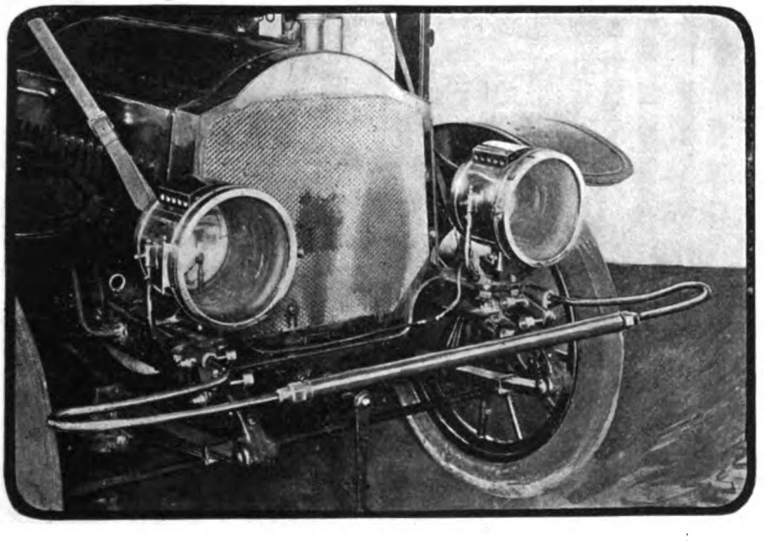
*the oil that lubricates most*

## FOR EVERY TYPE OF MOTOR

Vacuum Oil Company
Rochester, U.S.A.

## Save Your Lamps, Radiators and Fenders

by using the



# SAFETY Auto Bumper

Can not rattle.

Has many times the resiliency of any Bumper wherein coiled springs are used.

The eye bolts and oiling mechanism are not removed from front spring in attaching the SAFETY BUMPER.

Our patent fastener clamps rigidly on car frame and no holes are drilled in the frame.

Can be put on car by anyone with a monkey-wrench.

It's position is high up on the car so as to amply protect lamps.

Manufactured Exclusively by the

**ACCESSORIES MANUFACTURING COMPANY, 1926 Broadway, New York City**

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**FORE! FOR the FOUR-TONE**

Crowded thoroughfares open up like magic before the sweet far-reaching notes of the new GABRIEL FOUR-TONE HORN. "GABRIEL HORN" Cars always have the right of way.

A postal brings full information. Write us.

**GABRIEL HORN MFG. CO., 1417 E. 40th Street, CLEVELAND**

**STEERING GEARS**
**CONTROL LEVERS**
**RADIATORS**

**PROMPT DELIVERY**

**CENTAUR MOTOR COMPANY**
**510 Majestic Building** **DETROIT**

**Standard Equipment**

means the best in automobile accessories. They eliminate trouble, reduce cost of upkeep and make motoring safe, comfortable and enjoyable.

UNITED STANDARD EQUIPMENT MANUFACTURERS — WE PROTECT THE DEALER, THE OWNER AND THE CAR.

Jones Speedometers
Jones Electric Horns
Wood Chain Tire Grips
Connecticut Ignition Specialties
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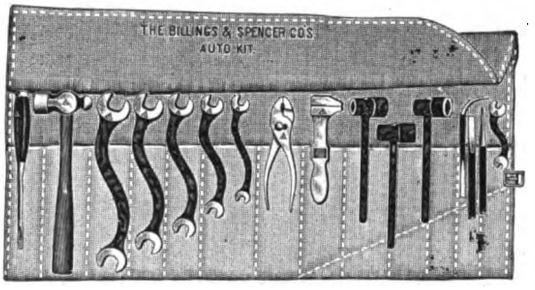
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**Cramp — Metals**

**The B & S Tool Kit**

Every tool a steel drop-forging, a handy and popular selection. No better guarantee than the fact that each tool is made by




New Catalog

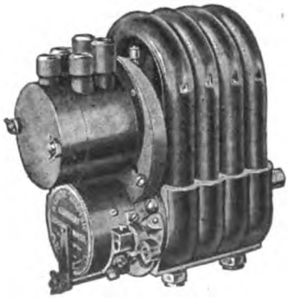
**THE BILLINGS & SPENCER CO., Hartford, Conn.**

**BRISCOE PRODUCTS**

**Radiators, Hoods, Fenders, Sheet Metal Parts of All Kinds**

**Briscoe Manufacturing Co.**
**General Offices, Detroit, Mich. Factories, Detroit and Newark, N. J.**

**Heinze High Tension Magneto**



**Construction**—Mechanically unequalled.

**Durability**—Greater than the life of the car.

**Efficiency**—Proven by the users.

*Catalogue H with full information is yours for the asking.*

**HEINZE ELECTRIC COMPANY**
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25 H. P. PLANETARY TRANSMISSION
Showing Both Cone and Disc Type Clutch.

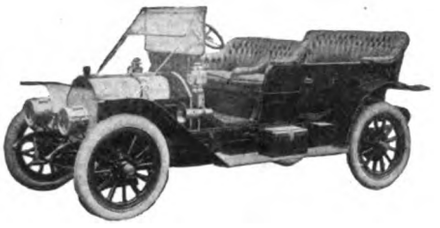
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TOY TONNEAU
SPEEDSTER

**Each $2150**



Style, Luxury, Quality, Strength, Speed.

Made Right and Stays Right

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**MERCER AUTOMOBILE CO., Box 126, Trenton, N. J.**

# Regal 30

**"The Ideal Car for all Purposes"**

The only $1250 car with a record of three years of success behind it

**$1250**

Runabout, Baby Tonneau, Touring Car, Coupe

**Greatest Automobile Value in America**

WRITE FOR OUR LITERATURE

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112 inch wheel base, 34 inch wheels, quick detachable rims, Bosch dual ignition with storage battery, selective type transmission, Brown-Sharpe gears, F. & S. ball bearings.



*Write for our new liberal agency proposition.*

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# $1,600 Cartercar



Model "L," 4 cylinder, 30-35 H.P., 110 inch wheel base, 5 passenger, Friction Transmission. Chain-in-Oil Drive, any number of speeds, will climb a 50% grade with load, including magneto, gas lamps, generator, horn, mats, tools, jack, etc. $1,600.

Model "H," 4 cylinder, 25 H.P., 100 inch wheel base, Runabout $1,100. Double Rumble $1,125 Double Divided Rear Seat $1,150. Miniature Tonneau $1,150.

Write for 1910 catalog.

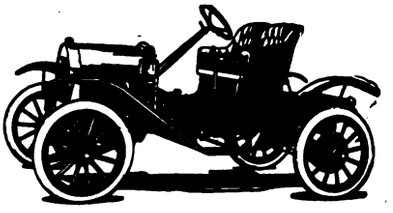
**CARTERCAR CO.**

**Pontiac, Mich.**

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# EVERYMAN'S CAR

**Seven Models**



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**The BRUSH $485.00**

**BRUSH RUNABOUT COMPANY**

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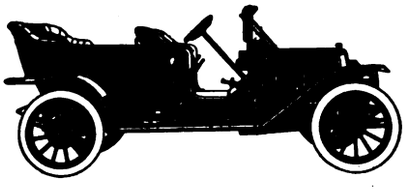
# The ~~Inter-State~~ "40"

## Highest Grade—Moderate Price

**With its graceful lines, longer wheel base, luxury and roominess, power, speed and durability, the 1910 Inter-State car at $1,750 is your money's worth, dollar for dollar. No car at any price is better. Improvements this year are standard and found only in highest priced cars. Get our catalog.**

**INTER-STATE AUTOMOBILE CO.** MUNCIE, IND.

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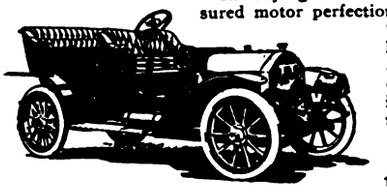
**Model "50"— 4 Cylinder Touring Car, . . $2350**
**Model "40"— 4 Cylinder Touring Car, . . $1700**
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**JACKSON AUTOMOBILE CO.**

Licensed under Selden Patent. JACKSON, MICH.

# Pierce-Racine

**$1750** **The Car with a Famous Engine**



In buying a Pierce-Racine you are not only assured motor perfection, but satisfaction in every way. The body, wheels, springs, upholstering, accessories, etc., are all of a superior quality found only in the high priced American and Foreign makes. Write today for catalog.

**PIERCE MOTOR COMPANY**

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1911 ANNOUNCEMENT

Watch for it September 15th

CORBIN MOTOR VEHICLE CORPORATION
New Britain, Conn., U. S. A.
Licensed under Selden patent.

FRANKLIN—1911

Utmost satisfaction in the use of a motor car demands one selected to suit the individual requirements and taste.

Each Franklin is designed to meet a definite demand, and each combines everything that gives grace and distinction of design, efficiency and dependability of operation.

Franklins for 1911 are made in four chassis sizes and horse powers. All are of the same high quality. Two chassis have six-cylinder motors, and two have four-cylinder motors, with eleven styles of open and closed bodies.

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Licensed under Selden Patent
FRANKLIN AUTOMOBILE COMPANY Syracuse N Y
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THE SELDEN CAR
FOR 1910

| | |
|---|---|
| 5-Passenger Touring Car | $2,000 |
| 3-Passenger Roadster | 2,000 |
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Booklet and specifications upon application.

AGENTS WANTED IN UNOCCUPIED TERRITORY.

SELDEN MOTOR VEHICLE CO.
GEO. B. SELDEN, President, - ROCHESTER, N. Y.
Licensed under Selden patent.

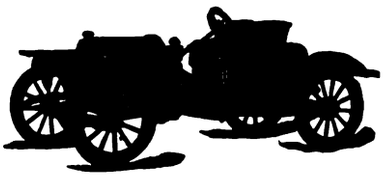
K-R-I-T

"The car with the invisible start."

96 in. wheel base
32 in. wheels

22½ H. P. $800

Sliding gear transmission. Multiple disc clutch. Weight, 1200 lbs.



Runabout $800.
Roadster $825.
Surrey $850.

Write for Catalog
K-R-I-T Motor Car Company
DETROIT

Not a Car of Advertised Value,
But a Car of Intrinsic Worth.

STERLING

$1750

Let us send you our Catalog
ELKHART MOTOR CAR COMPANY, Elkhart, Ind.

The only car of established reputation selling at a moderate price.

HAYNES

$2000

Station C, KOKOMO, IND.
Licensed under Selden Patent.

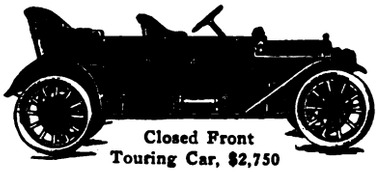
Maxwell Cars—1911 Line

| Model | Style | Cylinder | H. P. | Price |
|---|---|---|---|---|
| E. A. | Touring Car | 4 | 30 | $1600 fob |
| G. A. | Touring Car | 4 | 30 | 1600 fob |
| G. A. | Roadster | 4 | 30 | 1600 fob |
| E-11 | Touring Car | 4 | 30 | 1500 fob |
| G-11 | Touring Car | 4 | 30 | 1575 fob |
| I | Touring Car | 4 | 25 | 1100 fob |
| Q-11 | Runabout | 4 | 22 | 900 fob |
| Q-3-11 | Touring Car | 4 | 22 | 1000 fob |
| A. B. | Runabout | 2 | 14 | 600 fob |

Maxwell-Briscoe Motor Co. Vale Street Tarrytown, N. Y.

THE MARMON

"The Easiest Riding Car In The World"



Closed Front Touring Car, $2,750

Has won practically all the important long-distance racing events of America.

NORDYKE & MARMON CO., Indianapolis, Ind.
(Estab. 1851) Licensed under Selden patent.


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## Real Radiators

made of individual square tubes so much imitated in appearance, only.

## FEDDERS RADIATORS

are just what they appear to be—genuine square tubes. Furnished with tubes "staggered" or Mercedes finish.

You See the Fedders on the Finest Cars

FEDDERS MANUFACTURING WORKS, Buffalo, N. Y.

## SERVICE and SATISFACTION

are assured when

## G&J TIRES

are used.

G & J TIRE CO., Indianapolis, Ind.

We Sell Continental Demountable Rims.




## A Real Battery AT A REAL BARGAIN

We have on hand a number of 6 v. 60 amp. dry type storage batteries, built for us by one of the best known manufacturers. These batteries were built to sell at $26.00 and are worth the money, but as we have accidentally become overstocked, we offer them while they last at $12.50.

No better battery is built or sold at any price.

EXCELSIOR SUPPLY CO. (Estab. 1876) Randolph St. Bridge CHICAGO, ILL.

## Diamond

The Pioneer Motor Tires of America

FIRST—BEST

THE DIAMOND RUBBER COMPANY, Akron, Ohio

## HARDENING

High Speed Steel Hardening a Specialty

Case Hardening, Tool Steel Hardening
Heat Treating and Annealing

BRIDGEPORT METAL TREATING CO.
Bridgeport, Conn.



DEALERS: Are you handling the

## EDELMANN TIRE GAUGE?

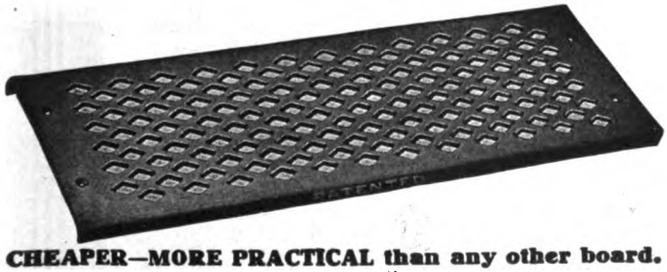
If not, why not?

They sell on sight! Because they are what every car owner needs. Indicate the exact pressure in the tire at all times.

Price $1.50 All dealers or prepaid mail on receipt of price

E. EDELMANN & COMPANY
51 W. Kenzie Street Chicago

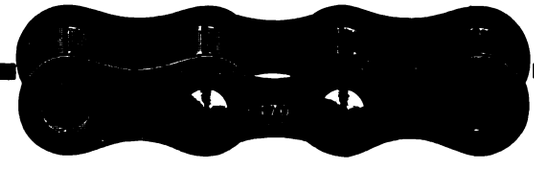
## PRESSED STEEL RUNNING BOARD



CHEAPER—MORE PRACTICAL than any other board.

*Send Dimensions.*

THE PARISH & BINGHAM CO., Cleveland, Ohio



## DIAMOND CHAINS

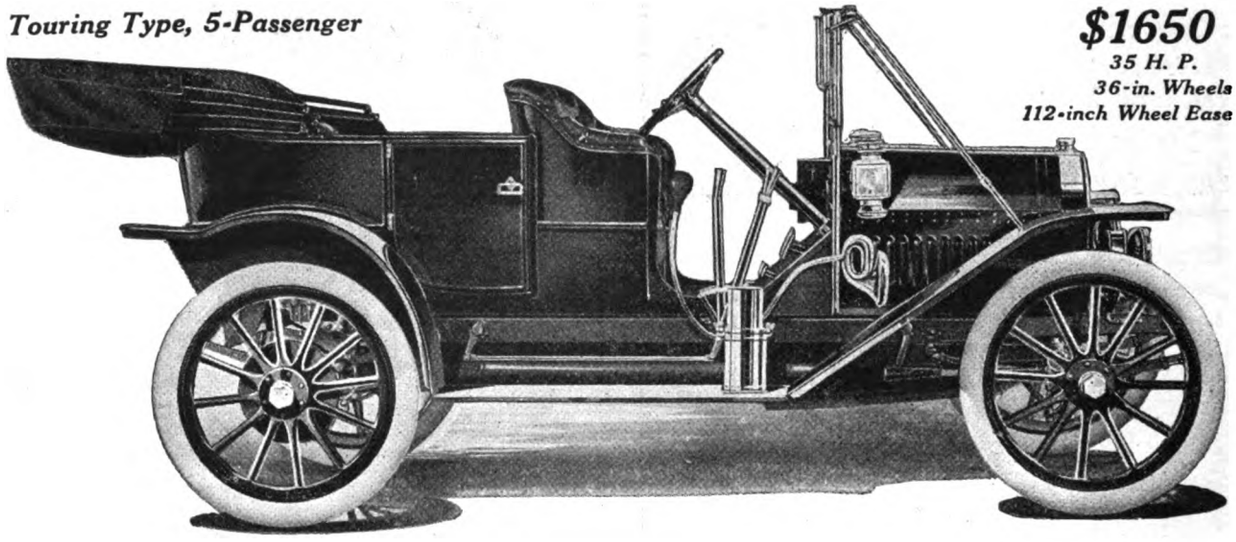
are and have been the recognized quality standard for 20 years. Strong, accurate and durable. Let us cut your sprockets.

DIAMOND CHAIN & MFG. CO.
150 W. Georgia St. Indianapolis, Ind.
Capacity 8,000,000 feet per year.


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# 1911 Moline "35"

*Touring Type, 5-Passenger*



**$1650**
*35 H. P.*
*36-in. Wheels*
*112-inch Wheel Base*

## The Car To Buy

THE most important thing you want in an automobile is

***Dependability*** What better proof of absolute reliability can be asked than the record of the 1911 Moline in the recent Glidden Tour, the severest run ever made with an automobile.

The next thing you want is

***Style*** The grace and beauty of the two cars pictured here tell their own story.

And then you want a modest

***Price*** $1600 for 4-Passenger Toy Tonneau, $1650 for 5-Passenger Touring Type. Point by point the 1911 Moline will stand comparison with cars costing from $500 to $1000 more. Write for Catalog 61.

## The Car To Sell

DEALERS find it easier to sell a car that has won widespread

***Popularity*** The result of the recent Glidden Tour has set everyone talking about the 1911 Moline. Everyone wants to see the car which made such a wonderful record.

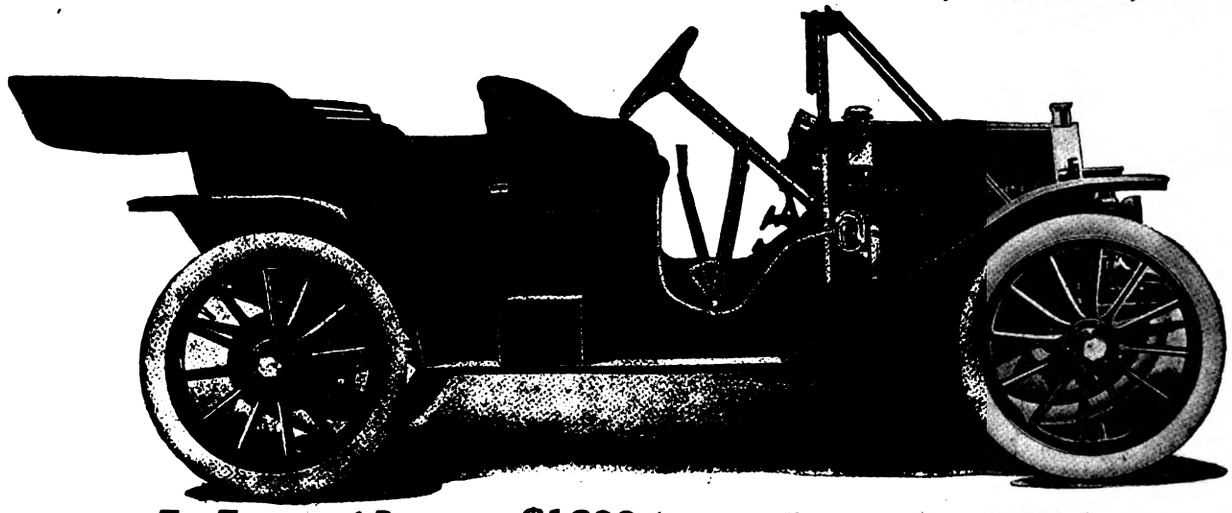
No other car has more

***Merit*** Every feature of the 1911 Moline is of tested and proven worth.

The Moline gives customers the

***Best Value*** Positively the highest class car ever offered for the price. Dealers will find not only profit but satisfaction in selling the 1911 Moline. Write quickly for territory.

**MOLINE AUTOMOBILE CO.** Licensed Under Selden Patent **61 Root St., E. Moline, Ill.**



***Toy Tonneau, 4-Passenger,*** **$1600** (Same specifications as Touring Type)

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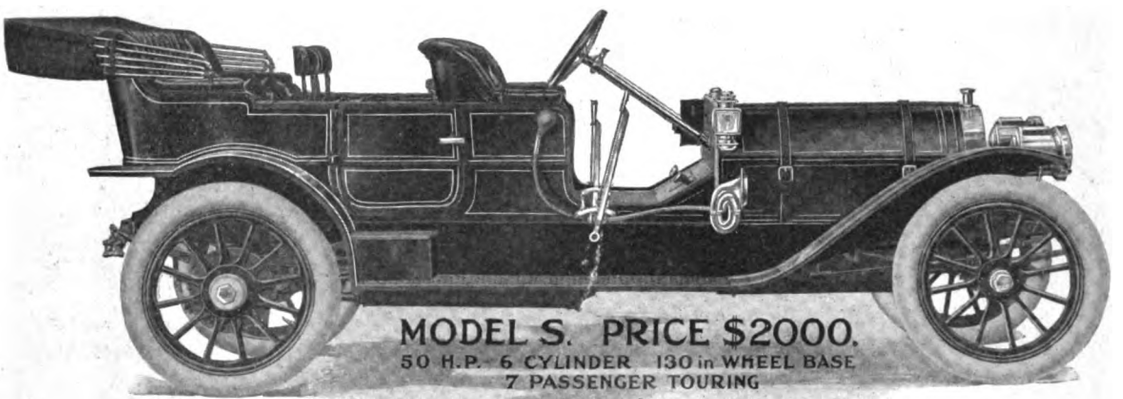
# Mitchell

The *Mitchell* has earned it's way into the hearts of the people by the *best service* of which an automobile is capable.

Of the thousands of owners you can't find one who doesn't *swear by the car.*

It's the low-cost high-class car
Silent as the Foot of Time

*The car you ought to have at the price you ought to pay*




**Mitchell-Lewis Motor Co.**
SUCCESSOR TO
Mitchell Motor Car Co. and Mitchell & Lewis Co. LTD.

PARIS ADDRESSES
20 Rue De Tilsitt & 4 Avenue Mc Mahon

*Racine, Wis. U. S. A.*

PRICES F.O.B. RACINE
LICENSED UNDER SELDEN PATENT


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THE CONTINENTAL CAOUTCHOUC COMPANY

Take pleasure in announcing the adoption of

Continental

DEMOUNTABLE RIMS

AS

REGULAR EQUIPMENT

BY

THE F. B. STEARNS COMPANY

OF CLEVELAND OHIO.

STURDINESS AND POWER

ARE DISTINCT

Stearns

Characteristics

Simplicity-Effectiveness-Safety

Characterize CONTINENTAL DEMOUNTABLE RIMS

Their coupling is a natural and logical combination to give their users the fullest measure of motor car satisfaction and service.

Continental Caoutchouc Company

1788-90 Broadway New York City

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The Mayo—the radiator thoroughbred

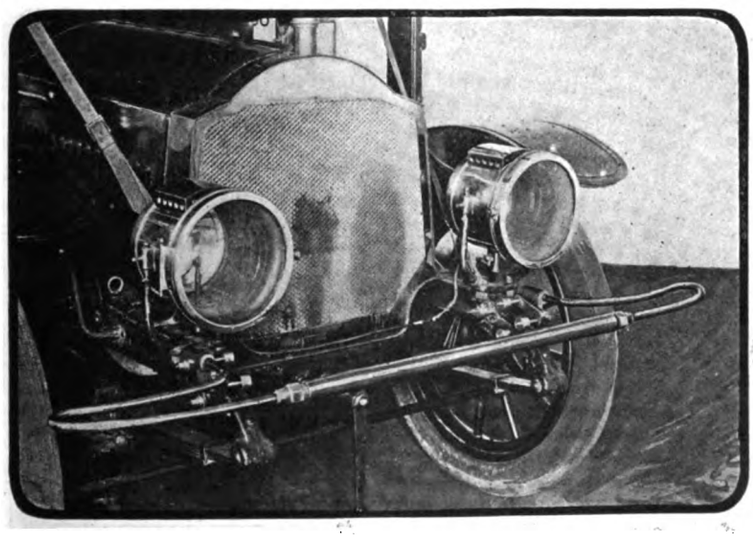
MAYO RADIATORS ARE SOLD FOR WHAT THEY ARE; NOT FOR WHAT THEY COST

Mayo Radiator Company
NEW HAVEN, CONNECTICUT

**Save Your Lamps, Radiators and Fenders**

by using the

**SAFETY Auto Bumper**



Can not rattle.

Has many times the resiliency of any Bumper wherein coiled springs are used.

The eye bolts and oiling mechanism are not removed from front spring in attaching the SAFETY BUMPER.

Our patent fastener clamps rigidly on car frame and no holes are drilled in the frame.

Can be put on car by anyone with a monkey-wrench.

It's position is high up on the car so as to amply protect lamps.

Manufactured Exclusively by the

**ACCESSORIES MANUFACTURING COMPANY, 1926 Broadway, New York City**

Phone 3206 Columbus


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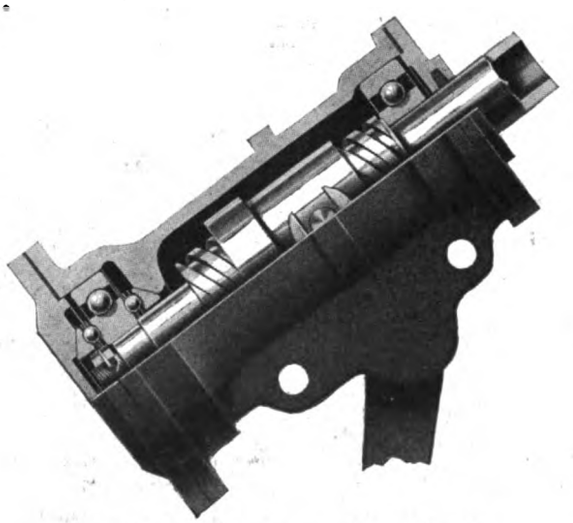

# The Infinite Capacity for Taking Pains

The manufacturer who does not expect to sell a staple article twice to the same customer cannot make a permanent market.

Bearings just good enough to sell a car, but not good enough to keep it running, are a poor investment for either builder or user.

The demand of experienced motorists is constantly for greater durability, less outlay on repairs, less time lost from service, less complexity, less bother. And the wise owner is not satisfied to get fair service for a year or two and then sell a wreck for whatever it will bring. It is money in his pocket for his car to hold up well and be worth a fair price when it is sold.

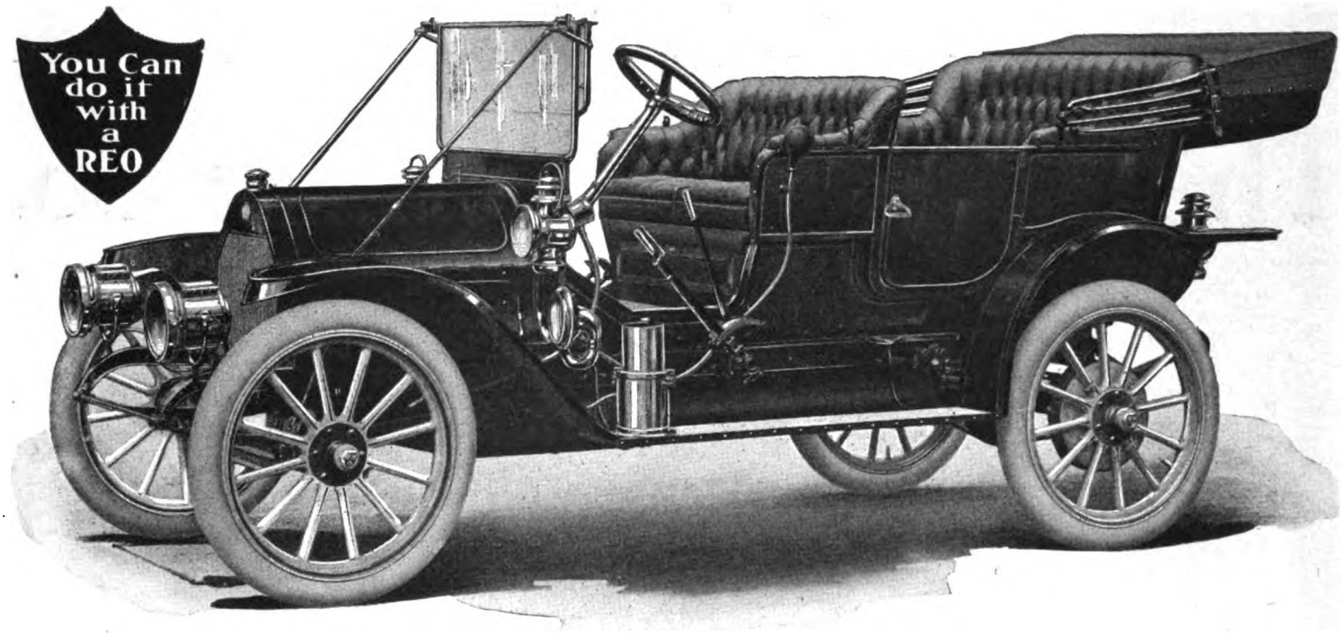
HESS-BRIGHT Ball Bearings last from 40,000 to 80,000 miles. The owner whose car contains them is relieved of all expense for bearing maintenance during that mileage. Owing to the constant alignment of gear shafts, his expense for gears is likewise a minimum. That means much more than saving the mere cost of new parts—it means saving the greater cost of labor in dismantling and reassembling, and saving the loss of car service while repairs are being made.



Steering Gear of a German Automobile using HESS-BRIGHT radial and thrust ball bearings.

THE HESS-BRIGHT MANUFACTURING CO.
2109 Fairmount Avenue
PHILADELPHIA, PA.

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Reo "Thirty" Five-Passenger Touring Car, $1250. Top and Mezger Automatic Windshield Extra.

# Reo Breaks the Record

## From New York to San Francisco—What this Means to You

The previous record was 15 days, 2 hours, 12 minutes. It was a good one, and it was made by a light-weight car. This record has stood three years in spite of many efforts to break it; for the speed and constant going required over all sorts of roads—and much of the way nothing but "desert tracts"—makes the trip the severest possible accelerated test of endurance.

But when the Reo "Thirty" tried, it smashed the record all to pieces—beat it by 4 days, 10 hours, 59 minutes, and beat it fairly and squarely. More than that, the Reo kept steadily ahead of a schedule made out in advance—just so many miles a day. No spurts, no rest. Just steady, reliable "plugging."

## The Reo Record is 10 days, 15 hours, 13 minutes

The trip was announced in the newspapers ahead of time so that any one, who wanted to, could see the start Monday morning, August 8, at one minute past twelve, and the newspapers were kept informed of the Reo "Thirty's" progress all along the journey, until it reached San Francisco on Thursday, August 18. The car was number 69,862. At every point on the trip the arrival and departure of the Reo Number 69,862 were checked by men well known in the community who were not interested in the Reo, and these checkings were supported by affidavits. The test was made open and above board—nothing to hide.

The Reo "Thirty" is a light-weight car, but it has the material and construction that stands every test. It has the power and the strength, and its construction permits full use of power over all sorts of roads—even deserts with no roads.

The Reo has the stuff in it, and this record proves it. No one can ever doubt that the Reo, light-weight though it is, has the mighty strength of a lion. This record proves that the Reo will do what you or any one else wants it to do any where at any time. It is just one more proof of the famous Reo get-there-and-back ability.

The car that made the previous record was four thousand dollars. The Reo Number 69,862 that beat it is only $1250.

Reo "Thirty" Four-Passenger Roadster, same price. Reo "Twenty-Three" Four-cylinder Runabout $850

*Send for Catalogue, also "Coast to Coast in Ten Days"*

R M Owen & Co Lansing Michigan General Sales Agents for Reo Motor Car Co.

Licensed under Selden patent.

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# The Dayton Motor Car Co.

**Dayton, Ohio**

place the largest individual order ever given for demountable rims. All 1911 Stoddard-Dayton and Courier cars will be equipped with

# THE STANDARD UNIVERSAL RIM

**MANUFACTURED BY**

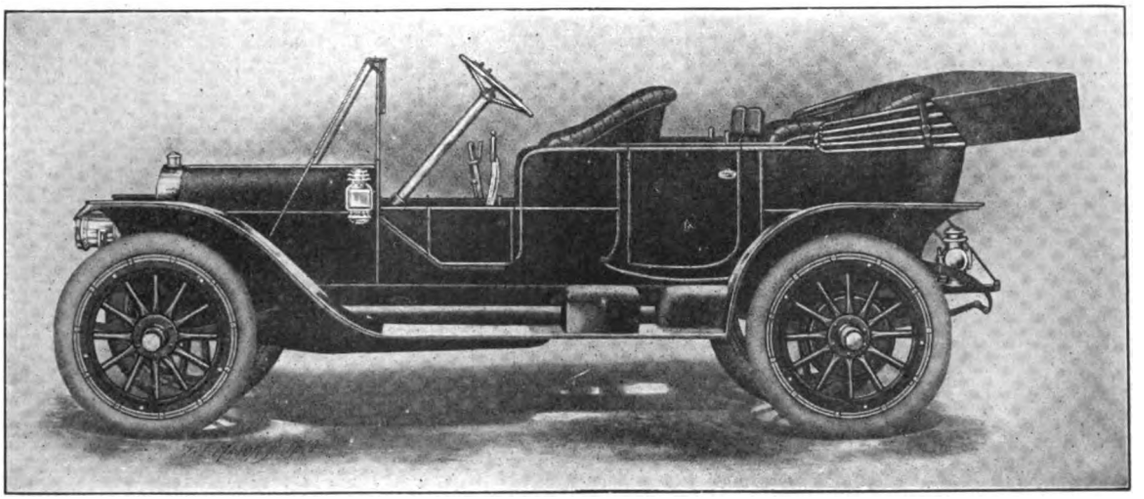
## The United Rim Company

**Akron, Ohio**

The wholesale adoption of the Standard Universal Rim by representative automobile manufacturers is the best argument in favor of its practical and desirable demountable and quick detachable features.

# FITS ALL TIRES


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1911 Model R 40 H. P. Touring Car. Price Equipped $3300.00

QUALITY Knox QUALITY

# Quality Is What You Get When You Buy a Knox

**RELIABLE MOTOR CARS MANUFACTURED BY RELIABLE MAKERS**

¶ KNOX motor cars are the result of years of experience in manufacturing high grade cars exclusively and KNOX water cooled types have many times shown the superiority of up-to-date construction ever since their introduction.

¶ KNOX types and features of construction are not copied from other makes, but are designed and manufactured in a completely equipped factory and under the supervision of a competent engineering department.

**Knox Features are Unit Power Plant, Three Point Suspension, Cylinders Made with Detachable Heads and Valves in the Head, De Dion Lubricating System, Three Plate Clutch, Straight Line Shaft Drive, Etc.**

**WRITE FOR INFORMATION AND CATALOG.**

## KNOX AUTOMOBILE CO., Springfield, Mass.

Licensed under Selden patent.

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# CALEB BRAGG
## and his experience

HOTEL CUMBERLAND
BROADWAY AT 54TH STREET
NEW YORK

June 27, 1910.

Emil Grossman Company,
232 West 58th St., New York.

Dear Sirs:-

I received your letter of the 17th asking what success I have had with your RED HEAD Plugs.

After unsuccessful and unpleasant experiments with nearly all plugs, none of which gave what might even be called satisfaction, and at the suggestion of Ralph DePalma, I tried your plugs last February, and have been using them ever since. They have given better service than I had ever hoped for, after my experience with other plugs.

The 90 H.P. Fiat motor is probably the hardest motor on plugs today. The small bore 5-1/8 in. requires high engine speed which means intense heat. The long stroke 7-3/8 gives a very high compression and powerful explosion, which will blow the core out of most plugs. The long stroke also requires a great amount of oil and as the plugs are placed in the sides of the cylinders the oil has little chance to run out of the plugs, which results in short circuits.

I have never had one of your plugs short-circuit, never had a core blow out. The inner sleeve has sometimes cracked when driving the car to the limit but this does not affect the plug unless the pieces of porcelain wedge between the points.

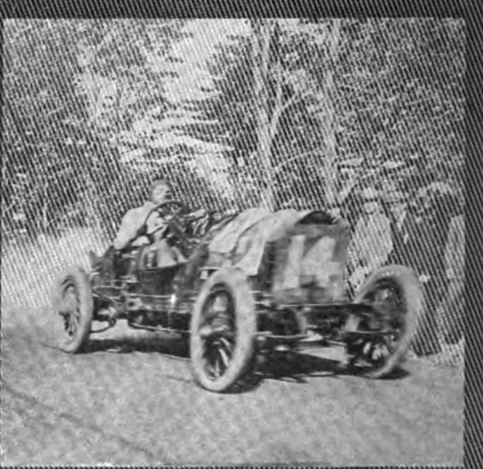
I gladly send you this letter and congratulate you on your RED HEAD Plugs, which have played no small part in the success and pleasure I have had with my car.

Yours truly,

Caleb S. Bragg





Emil Grossman Company
Manufacturer
232 West 58th Street
New York

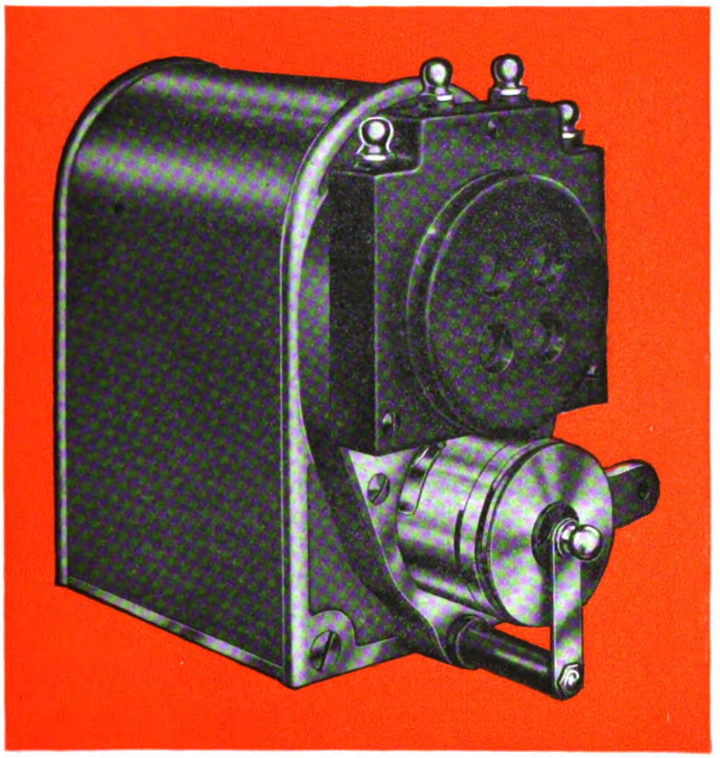
Chicago 1436 Michigan Avenue
Detroit 874 Woodward Avenue


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# CONNECTICUT MAGNETO

## This is the World's Best Magneto!

We make the unqualified statement that this magneto is BETTER than the best magneto now on the market. We except none. Wouldn't you like to own the finest ignition device the world produces? If so, get the CONNECTICUT. Write us to-day for detailed description and full particulars.



You can start the CONNECTICUT on one-quarter turn of the crank. You drive as slowly with this magneto as you can on batteries.

The CONNECTICUT enables you to drive through traffic-congested streets and around corners at slow speed without shifting gears or switching to battery.

It is the simplest magneto made. Nothing to get out of order. A novice can dis-assemble and assemble the CONNECTICUT without the use of tools. Parts are made so that they can not be assembled wrong.

There are four windows in distributor cover. This enables you to tell WHICH cylinder is "skipping," if that trouble should occur.

Absolutely dust and water-proof. Too much oil does not affect it. Pronounced by experts to be the MOST EFFICIENT magneto on the market. Materials, including the finest imported bearings, the best that money can buy. Let us explain to you in detail why this magneto excels all others.

Know more about the CONNECTICUT MAGNETO.

**CONNECTICUT IGNITION DEPARTMENT UNITED MANUFACTURERS**

**250 West 54th Street, New York**

WE PROTECT THE DEALER THE OWNER AND THE CAR


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# A Triumph of

**1911**

**THE Detroit ELECTRIC**

## Adjustable Beveled Gear, Directly Connected in This Shaft Drive, Without Chain or Gear

Last season, in response to a demand for a shaft-driven electric, we announced that we preferred to adhere to the already-proven mechanical excellence of our chain-driven models, until we had perfected a REAL DIRECT DRIVE without reduction of chain or gears from motor to shaft.

The above essentials to a mechanically perfect shaft drive, hitherto lacking in any shaft-driven electric, have been invented and perfected by us.

There will be installed in several of our 1911 models.

## Transmission

The power is transmitted direct to a beveled gear in the rear axle through the armature shaft and the driving shaft which are connected by one universal joint.

The motor is rigidly attached to a sub-frame, in such a position that the driving shaft never assumes an angle greater than three (3) degrees in spring movement.

The universal joint is of special dust-proof design, forming part of the rear motor head and is constantly lubricated by working in a bath of grease.

Common practice in beveled gear construction up to this time has made necessary an extra reduction through a chain or a set of gears, bearings and countershafts. The elimination of this first reduction necessitated the development of a motor of special design in which two of the most important factors were heavy pulling properties and low current consumption.

After two years of research and experiment, we have succeeded in perfecting such a motor, made in our own shops, applicable to shaft driven cars.

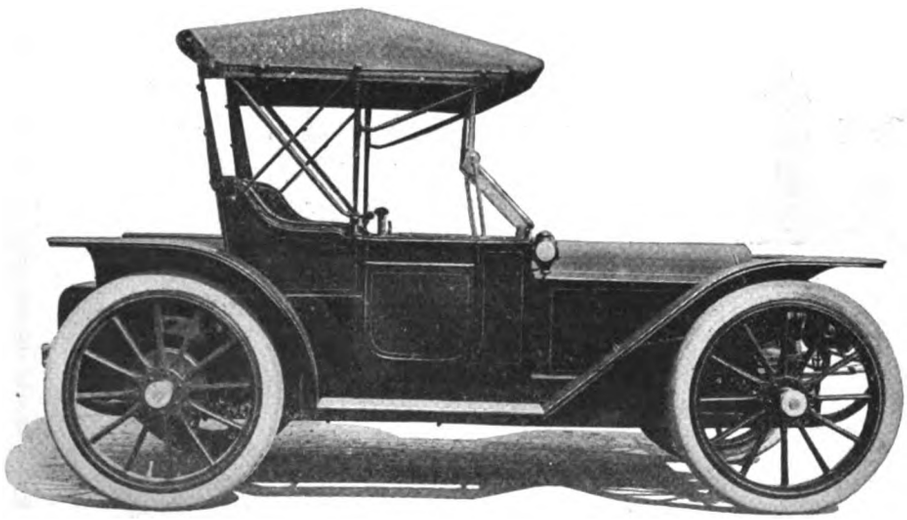
By eliminating this reduction, we have also been able to produce a motor with the least possible number of parts.

The elimination of this reduction makes the transmission of power practically instantaneous, with the least loss of efficiency.

## Accessibility

There is not a single moving part, from the motor to the rear axle, that is exposed.

The semi-floating axles, bearings, supports and the differential may be separately removed from the rear axle without disturbing any of the other parts of the mechanism; similarly, the armature may be removed from the motor without disturbing any part of the driving shaft or rear axle.



Model "P" Roadster with underslung frame, built on rakish racy lines, with a 96-inch wheel base. This car has a very low center of gravity and will skim along the ground like a scared deer. It's like driving on thin air—the nearest thing to an aeroplane ever made in a motor car.

## Simple Adjustment of Beveled Gear

General practice in beveled gear construction necessitates the dissembling of the rear axle for the proper adjustment in the meshing of gears and the elimination of the consequent noise.

Our construction provides a simple and positive means of adjustment that can be made by the owner himself without expert assistance, by removing the cap at the rear axle that covers the differential housing.

# THE ANDERSON CARRIAGE

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# Transmission

THE Detroit ELECTRIC

1911

**Reductions Between Motor and Shaft, Requiring the Fewest Possible Number of Parts.**

## Sixteen Models for 1911

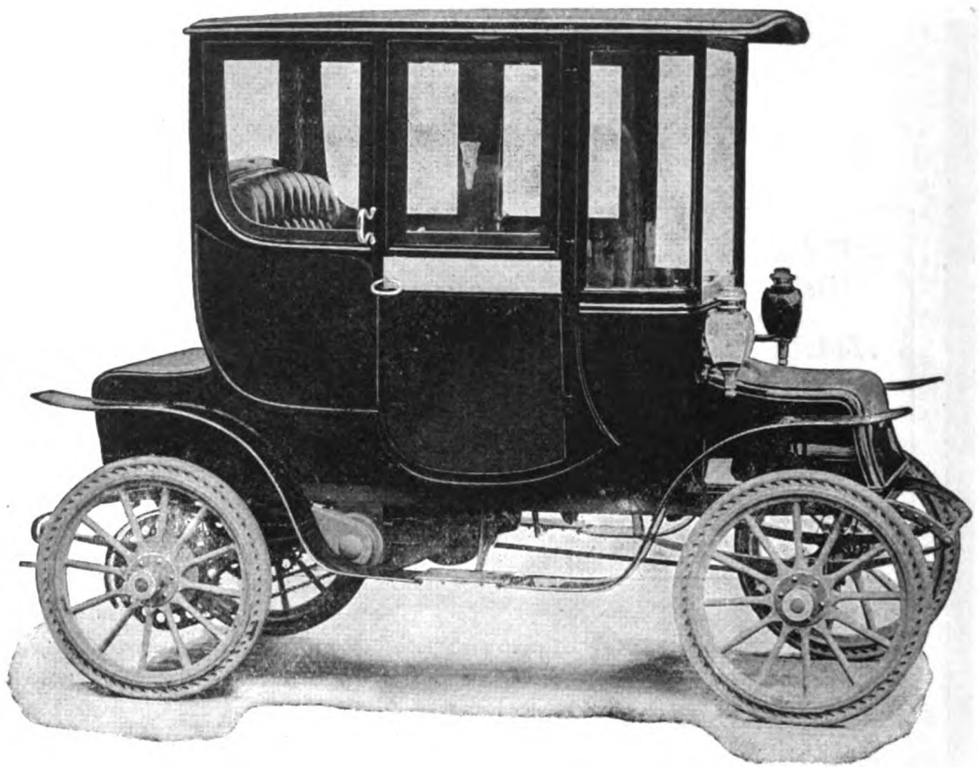
Important changes and additions have made the DETROIT line more complete than ever.

Every one of these models may be equipped with EDISON or lead batteries.

Besides the larger brougham and the racy underslung roadster illustrated in this announcement, we have changed the wheel base on model "C," three passenger coupe, from 80 to 84 inches to give it easier riding qualities, and have installed on this chassis a graceful victoria panel body.

Another exclusive novelty is the Model "N," large four-passenger victoria, 84 inch wheel base, universal tread and permanent front seat 40 inches wide by 18 deep.

An attractive new model is the "FL," a victoria type with or without rumble seat in the rear and long EDISON hood in front. The 87 inch wheel base and light construction of this model make it a perfect driving car for ladies.



Model "M," four passenger Brougham, measures 54 inches from extreme of rear to extreme of front seat, or 9 inches longer than our Brougham model of 1910. Rear seat 46 inches wide, 20 deep, front seat 41 wide, 18 deep. It has an 84-inch wheel base. The front corner panels and the hoods are of aluminum to decrease weight and prevent "checking."

Model "D," for four years of successful service in the hands of thousands of delighted owners, will be continued in both chain and shaft drive transmission. The 1911 "D" will have aluminum hoods instead of wood, to avoid "checking," and a few other refinements. Otherwise, there will be no changes.

## Three Optional Drives for 1911

In addition to the new shaft drive we will retain our successful double chain and tandem Renolds silent enclosed chain drives in all our models.

No other line of electrics gives you such a wide choice of transmission.

With these three drives our line is fitted for every demand in any location in the United States, from the congested traffic of New York streets to the snows of the Dakotas and the hills of Seattle.

In all you will have a selection of 16 different models, covering every condition of social or business use for town or country.

**Optional Tires**— *32 x 4, 34 x 4. Pneumatic or Motz Cushion Tires*

## Edison or Lead Batteries

We will equip all our models with the lead batteries if you so desire.

However, the success of the past season, the enthusiasm of our 1910 owners, impels us to urge more strongly than ever the equipment of the EDISON for perfect service and ultimate economy.

This battery gives you more mileage, requires little care, and is practically indestructible.

It solves the problem of repairs and renewals at one first and final cost.

The EDISON will outwear from six to eight lead batteries, to say nothing of the saving in repair bills.

It may be left indefinitely discharged without injury. All the care it requires is to keep the cells filled with water.

**Important to Merchants** More than 350 electric delivery wagons, equipped with EDISON batteries and owned by some of the largest stores and express companies, are in use in New York City. They are all giving excellent satisfaction. The Detroit Electric Trucks, with capacity ranging from 1,000 to 7,000 pounds, will soon be ready for the 1911 market. Announcement to be made later. For further details of our 1911 line inquire at our salesrooms.

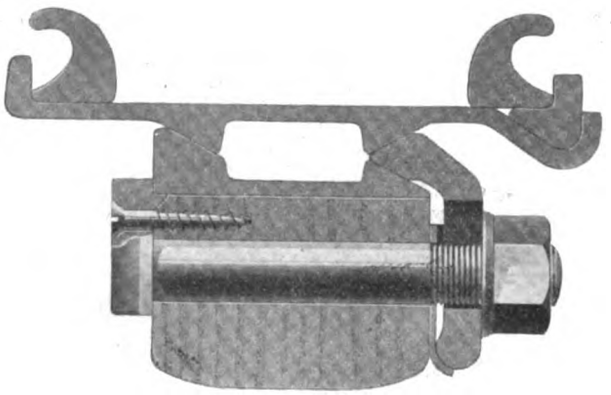
**COMPANY, Station E, Detroit, Mich.**

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# THE STANDARD UNIVERSAL QUICK DETACHABLE DEMOUNTABLE RIM No. 2

**REVERSIBLE SIDE RINGS**

**WILL ACCEPT EITHER CLINCHER, STRAIGHT-SIDE or DUNLOP TIRES**



**INTEGRAL CLAMP and WEDGE**

**Eliminates the Wedge Ring and Simplifies Demounting and Replacing.**

**A Demountable, Dismountable, Remountable, Removable, Quick Detachable, Time Saving, Trouble Proof Rim, Carrying Spare Rims With Inflated Tires and the Detachable Features of Which Operate In Connection With or Independent of Demounting.**

The tire rim is the popular No. 2 Standard Universal Rim and is equipped with reversible side rings for the acceptance of Clincher, Straight-side or Dunlop tires. The locking ring is so formed, and the side ring seats over it in such a manner, that there is absolutely no possibility of its being forced off.

The clamp is carried up and fanned out, forming an extra wide wedge and doing away with the wedge ring. Any argument as to the spaces between clamps having a tendency to collect road accumulations is refuted by the practical demonstration and popularity of a demountable rim using a similar device.

This rim is made of first class material in every respect by men who have been in the automobile rim business since its inception and who have turned out thousands upon thousands of sets. It is a result of a combination of the best ideas used in previous rims and is an earnest effort to bring about a standardization.

This rim is covered by United States patents, some of the patent numbers appearing on each one.

## THE STANDARD WELDING CO.

PIONEER RIM MAKERS

CLEVELAND

Western Representative
L. F. McCLERNAN
Monadnock Block
Chicago

Eastern Representative
L. D. ROCKWELL
U. S. Exp. Bldg.
New York


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# The MUNSEY HISTORIC TOUR

**from start to finish is just another**

# SWEEPING VICTORY

**for**

# "Firestone"

# Tires and Demountable Rims

Eight cars were equipped with Firestone Tires—a clear lead over all competition. Four cars had Firestone Quick-detachable Demountable Rims—the only demountables in the Tour.

Firestone service was the best beyond all comparison. Not one Firestone tire gave out, not one Firestone casing was replaced during all the terrific 1500-mile grind; not one. Not over 6 punctures all told.

**HERE IS THE PROOF IN DETAIL:**

"Firestone tires went thru without even a puncture. . They could do it twice again."—C. E. Miller (Ford No. 8).

"Firestone tires . . covered the 1550 miles with no attention except a puncture."—ROY M. UPTON (Moon No. 32).

"All Firestone tires using same air entire trip except one nail puncture."—C. C. FAIRMAN (Kline No. 31).

"Firestone tires and demountable rims gave best of satisfaction . . . two nail punctures the only tire accidents."—I. W. DILL.

"Firestone tires gave perfect satisfaction and finished with the original air in each tire."—TOM BERGER.

"Have clean record on Firestone tires . . . 3000 miles all told and not even a puncture." JACK HARRIGAN (Selden Pilot).

"Firestone demountable rims on pacemaker acted perfectly. We made quick changes always and kept ahead of the tour with them."—R. W. WILCOX (Columbia Pacemaker).

"Best of success with Firestone demountables. Made several changes in record time."—ROSS HENWOOD (Ohio car No. 21).

"Your demountable rims are A1 and work fine and easily."—G. M. WAGNER.

"Matheson Silent Six on Firestone tires went from New York to Phila. and clear through Tour with original New York air in all tires. Not even a puncture. Will return to N. Y. without touching the tires. Can you beat that?"—D. A. HALL.

**The Cleanest and Most Decisive Tire Victory of the Year Goes to Firestone Tires.**




**Firestone Non-Skid Tires**

**for absolute safety on slippery streets.**

## THE FIRESTONE TIRE & RUBBER COMPANY

**AKRON, OHIO and all principal cities**

**"America's largest exclusive tire makers"**


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# E-M-F "30"
# Flanders "20"
## AUTOMOBILES
## are guaranteed
## for one year


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# Chalmers
## MOTOR CARS

**THE Chalmers "30" is the only medium priced car that was ever awarded the Glidden Trophy.**

Of all the Glidden Tours, that of 1910 was the longest, and by far the hardest. It lasted for sixteen running days and covered 2,851 miles. It started at Cincinnati and went "by way of Dallas, Texas," through thirteen states to Chicago.

Words and pictures cannot make plain the racking cobblestone roads of Kentucky—the stump-studded forest trails of the Tennessee mountains—the swamps of Arkansas—the deep and treacherous sands of Texas—the mud of Kansas, the bridgeless southern streams or the sweltering heat that punished cars and men alike.

It is the opinion of experts who made this tour that no car in the world could have completed it with a perfect score. Yet, from Cincinnati to Louisville—to Nashville—to Sheffield, Ala.—to Memphis—to Little Rock—to Hot Springs—to Texarkana—to Dallas—to Lawton, Oklahoma—to Oklahoma City—to Wichita, Kansas—eleven consecutive days out of the sixteen, through the hardest part of the trip—**and for five days after every other car on the tour had been penalized,** not a single point could be assessed against the Chalmers "30"—the $1500 car.

In all the history of motoring, there is no performance like this. The Glidden Tour had never been won before by a car costing less than $4,000.

If you are thinking of buying a car, what better proof could you ask of reliable performance under all conditions than you have in the Glidden Tour record of the winning Chalmers "30"?

**The Chalmers "30" has never been defeated in any important motoring event by any car of its price and power class.** The Chalmers "Forty" won the Detroit Trophy in the 1909 Glidden Tour. Chalmers Cars have won more events of all kinds in proportion to the number entered than any other cars.

In addition to perfect mechanical performance, you get in the Chalmers all the beauty of line and finish that you can find in any car.

What more could you ask in any car at any price than you get in the medium-priced Chalmers?

We have never had so large a volume of business as we have now. There has never been so satisfying a demand for Chalmers cars as there has been since we announced our 1911 models. Yet this demand will not affect the Chalmers' policy of building cars for quality, not quantity.

We suggest, therefore, that you place your order now, in order to be sure of getting the car that is your **first choice.** Chalmers cars are the first choice of those who look most carefully into the automobile question and know the most about automobile values.

1911 cars will be delivered in order of purchase. All of our dealers have delivery schedules and will be able to tell you when delivery can be made. Write for new catalog "AD" and name of the nearest dealer.

## Chalmers Motor Company Detroit, Mich.

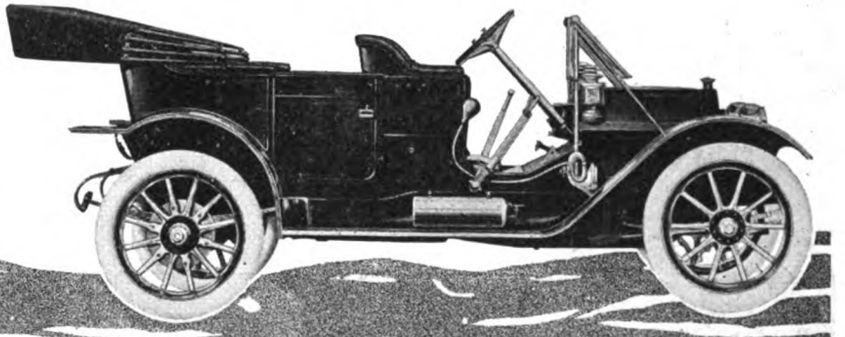
Licensed under Selden patent.

**"Chalmers "30"**

| | |
|---|---|
| Touring Car, | $1500 |
| Pony Tonneau, | $1600 |
| Roadster, | $1500 |
| Limousine, | $3000 |
| Landaulet, | $3000 |
| Coupe, | $2400 |

**Chalmers "Forty"**

| | |
|---|---|
| Touring Car, | $2750 |
| Torpedo Body, | $3000 |
| Roadster, | $2750 |




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# THE REGAL LINE

## Regal "40"—Fore-door and Open Styles Same Price—$1750
## Big, Powerful, Luxurious—Seats Seven
## 123-inch Wheel Base—34 x 4-inch Tires

THE VALUE is there. That's a little sentence. But think it over—it is big with meaning. Here is a car at $1,750 that gives you just what you have been accustomed to pay a thousand dollars more for.

That's the result of the Regal System—a system of factory organization and method—that eliminates WASTE and cuts out extravagant overhead expense, reducing the manufacture of high-grade cars to a scientific business.

The Regal "40" is built for those accustomed to stare things in the face—accustomed to criticize, analyze and get right down to the bottom facts.

We court the investigation of those who are looking for a dollar's worth of value for a dollar.

The Regal "Forty" is one of the easiest riding of all big cars. Its engine is one of the quietest and most flexible four-cylinder motors built. Throttles down from sixty miles to four miles an hour.

The moment you take the driver's seat you are conscious of great reserve power at your command—and when you actually start the car you realize that here is your ideal car—reasonable in price, but big, stylish, masterful in performance.

The Regal "40" is the BIG car of the Regal Line. We build two others—the world famous Regal "30"—the pioneer of honest values in the "30" class—and still the finest and best you can get for the money—$1,250.

And the Regal "20"—Full UNDERSLUNG FRAME—$900.00—just about the smoothest, raciest, speediest, easiest riding small car you ever saw. We refer to it as a small car—in reality compared to the ordinary "20" it is a big car—has more seat and leg room than any of them—got everything else in the world beat for style, and comfort—and has weight enough—so that it "sticks to the road." If you've ever driven a small light car you'll welcome this innovation.

**DEALERS. The Regal Line offers you the one LARGE OPPORTUNITY of the year. We welcome live ones—suppose you investigate—learn what the chances are for the territory you want. Better write us at once.**

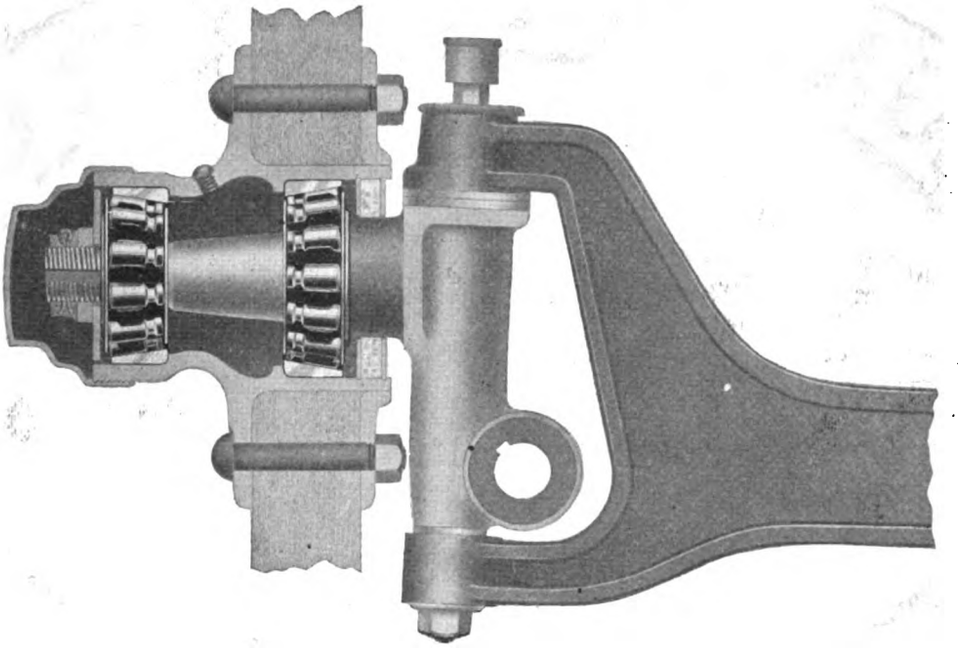
## REGAL MOTOR CAR CO., Detroit, Mich.

REGAL MOTOR CAR CO. Regal "40" DETROIT, MICH.

LICENSED UNDER SELDEN PATENT

REGAL MOTOR CAR CO. Regal "40" DETROIT, MICH.

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# Timken Roller Bearings

¶ The above cut shows Timken Short Series Roller Bearings installed in a Front Hub. It will be noticed that on account of the tapered construction of our bearings they are peculiarly adapted to this particular class of wheel work, since they are capable of carrying, not only the dead weight of the car, but also capable of taking care of the great end thrust which is present in all automobile wheel service. This is one of the important and exclusive features of the Timken Roller Bearing, namely, that it can stand as much end thrust as radial load.

¶ All bearings wear in time, and as a consequence, continuous end thrust on wheel application causes such wear that in a given time, or a certain number of miles of service, it is necessary to replace those bearings of the annular and other types in which the wear cannot be taken up.

THE TIMKEN ROLLER BEARING CO.
Canton, Ohio

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# The Packards

## of 1911 has—the
# Truffault-Hartford Shock Absorber

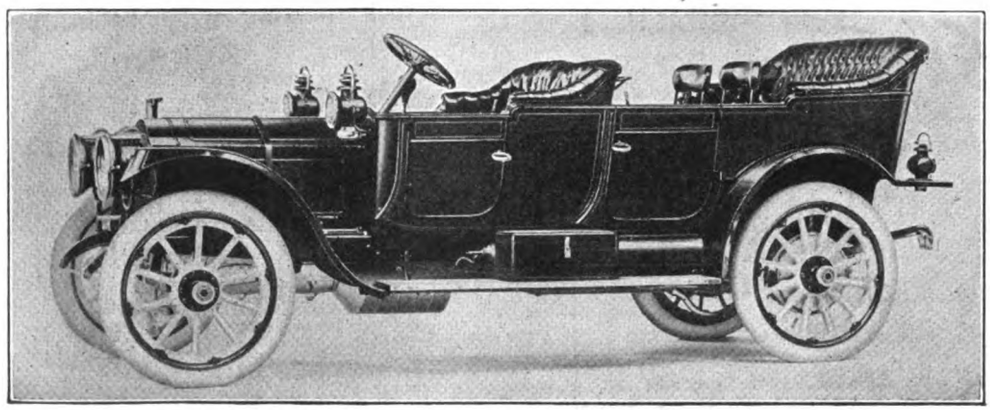


Makes
All
Roads
Smooth
Roads

THE Truffault-Hartford is the Standard Shock Absorber. Used in all important motoring events. Regular equipment on the best cars. Sold on a Guaranteed-to-give-satisfaction basis—it always makes good. Will fit any car and make any car fit for any road.

# AS REGULAR EQUIPMENT

**THE 1910 PACKARD, too, was Truffault-Hartford equipped at the factory**

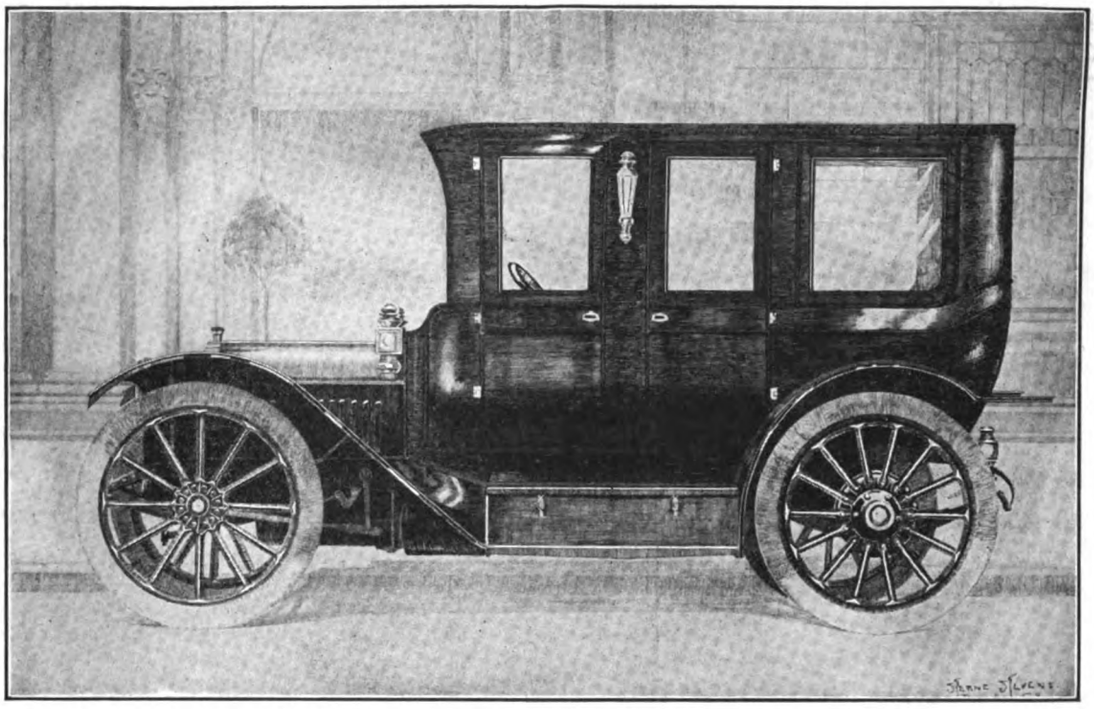


1911 PACKARD TOURING CAR TRUFFAULT-HARTFORD-EQUIPPED

**HARTFORD SUSPENSION CO., 164 Bay Street, Jersey City, N. J.**

New York, 212-214 West 88th Street
Chicago, 1458 Michigan Avenue
Boston, 319 Columbus Avenue
Philadelphia, 250 North Broad Street


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# "The 1911" Owen

**THE 1911 OWEN BERLIN represents the highest development of closed car construction. It is the embodiment of comfort with exclusive features affording greater convenience than can be enjoyed in other cars. The easy running qualities of the OWEN BERLIN are unequaled because of large wheels, OWEN spring suspension and minimum vibration from the long stroke motor. Combining these features with interior appointments of the most luxurious character, the OWEN BERLIN (seating six) is a car certain to please the most exacting.**

**Catalog and detailed descriptive matter sent upon request.**

## Owen Motor Car Company

**1620 East Grand Boulevard** **DETROIT, MICH.**

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The Overland

# See What $1,000 Buys in an Overland

The Overland

**Note what can be done by using automatic machinery—by enormous production—by devoting one factory to a single model—by saving the profits paid to makers of parts. See what a car you can now get for a little.**

The Overland has won the leading place in motordom by the use of modern methods. Over $3,000,000 has been invested to make Overland cars economically.

Each Overland factory is a model plant. There is not a lost motion—not a waste or repetition—from the raw materials to the finished car.

Each piece of machinery is adapted to making some part in the most exact, most rapid, most economical way.

That is how Overlands give so much for the money, and why they command such enormous sale. There is no skimping of materials, no slighting of workmanship. There are only up-to-date methods, which have been perfected by the army of Overland experts.

## Automatic Machinery

Even the best engineers are amazed when they go through an Overland factory. Here are myriads of machines—some of them costing into the thousands of dollars—each designed for the purpose of saving a trifle on some particular part.

Here is a machine which enables one man to do the work of sixty men. Here is a machine which performs thirty operations in the time which another machine took for one.

Here are welding machines—electrical welders—which bring steel to white heat while one takes a breath.

Here are rows upon rows of automatic machines, doing the work of an army of experts, and giving such exactness as human hands never gave.

Many of these machines were designed in our own factory—invented by our own engineers. Some save but a little—some save a great deal. The sum of their savings—on the thousands of parts which enter into a car—has cut the cost of Overlands 20 per cent within the past year alone.

Some high-priced makers say their cars are hand made. Overlands are made—as watches are made—by exact automatic machinery.

## Other Economies

We devote one factory to one model alone. Every machine is adapted to some particular part. Every man is trained in one operation.

There is a separate factory for mud guards, a factory for radiators, an engine factory, a factory which makes nothing but screws. There is a crank-shaft factory—an enormous plant—built to save you $15 per car.

Then there is overhead expense which, in many a factory, amounts to 25 per cent of the cost of a car. In the Overland factory that expense is spread over an annual output of $24,000,000.

Those are the reasons why Overlands give so much more than the rest for the money.

## 25 h. p.—$1,000

This year we are selling a 25-horsepower car, with a 102-inch wheel base—for $1,000. Its possible speed is 50 miles an hour. It will carry four people up a 50 per cent grade, starting from standstill.

It is not under-sized, not under-powered, like the usual low-priced car. It is a car to be proud of—a car that meets any requirement.

It is a car of matchless simplicity. The operation is by pedal control. One goes forward or backward, fast or slow, by simply pushing pedals. A child can master the car in ten minutes. A young woman is now driving one of these cars from the Atlantic to the Pacific.

The car is almost trouble-proof. Many an owner has run it thousands of miles without even cleaning a spark plug. These cars have been used in the U. S. Mail service for over a year and a half. During all of that time they have made their daily trips, in all sorts of weather, without a moment's delay. Hundreds of men who could afford any car have chosen for their own use this $1,000 Overland.

## 40 h. p.—$1,250

The 40-horsepower Overlands—with 112-inch wheel base—sell for $1,250 to $1,500, according to style of body, etc. The Marion-Overland—the marvel of motordom—sells for $1,850.

All of these prices include gas lamps and magneto, and the Marion-Overland includes a Prest-O-Lite tank.

Please send us this coupon for full information. Then measure the Overlands by any competitor. You will see why the Overlands have so quickly become the most popular cars in existence.

We have dealers in 800 towns.

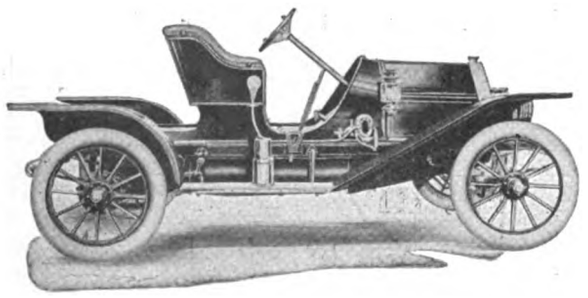
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**The Willys-Overland Company**
**Toledo, Ohio**

*Please send me information about*
*Passenger Cars* ☐ *Delivery Cars* ☐
*The Marion-Overlands* ☐

_____

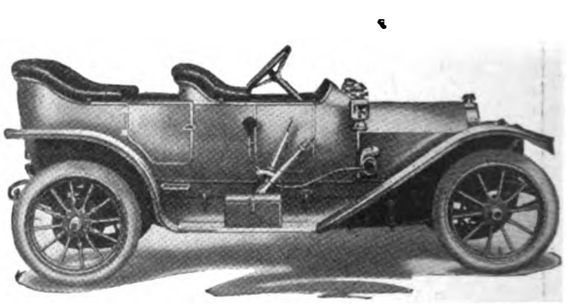
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The $1,000 Overland—25 horsepower—102-inch wheel base. Same car with single rumble seat, $1,050; with double rumble seat, $1,075; with complete toy tonneau, $1,100.

The Overland

Licensed Under Selden Patent



40-horsepower Overlands, with 112-inch wheel base, cost from $1,250 to $1,500. Marion-Overlands, $1,850. We fit these cars with all the latest styles of body, open or enclosed.

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THE MOTOR WORLD

Volume XXIV. New York, U. S. A., Thursday, September, 8, 1910. No. 10

## GENERAL MOTORS MUST RETRENCH

### Expansion Plans Disapproved by Bankers —$2,000,000 is Raised in the East to Help Buick.

Retrenchment now is to be the policy of the General Motors Co., and the glittering plans for big extensions in Detroit, in Saginaw and elsewhere have been put in the refrigerator, in accordance with the dictates of banking interests who are in a position to insist on a contraction of the company's operations. This reversal of the General Motors announced program is more or less the direct result of the fact that the "wizard" of the enterprise has had to modify his plans in order to borrow money to finance the Buick Motor Co., the affairs of which are in such shape as to require a large amount of ready cash to avoid embarrassment.

After trying Detroit's banking interests and not meeting with the lending enthusiasm that had been expected, the "wizard" held a conference in New York on September 1st with some eastern bankers, and succeeded in arranging for a loan of $2,000,000, divided among five banks, two of which are in New York City, two in Boston and one in Chicago. This money, together with some $1,000,000 or more that the Buick company has available for paying off its obligations to the trade, gives that company means for getting in better shape than it was.

The first session of the conference, in the morning, was not particularly resultful except in developing disagreeing views between the "wizard" and the bankers as to the wisdom of General Motors expansion plans, but a later conference found the wizard more tractable to the bankers' ideas that retrenchment and not expansion is the better policy if loans are to be negotiated. It is the bankers' view that there has been overproduction in the case of at least one of the General Motors cars, but that by means of the concessions in prices which are being made for a rapid bringing in of cash and with the money that now has been borrowed, the company will be able to fortify itself in a stronger position, provided retrenchment and economy prevail in its operation.

Although efforts have been made in some quarters to create the impression that "the Morgan interests" have come to the rescue and stand ready to supply necessary money, the loan that General Motors was able to negotiate is not known to have any relation with Morgan money, as the five banks in question are not in the Morgan camp. Rumors that the reorganization which General Motors is undergoing involves either a merger or an alliance with the United States Motor Co. also are authoritatively denied. Because of the situation in which General Motors at present finds itself, the heretofore aggressive General Motors Securities Co., which has had the task of finding a market for General Motors stock certificates, has ceased its campaign, explaining to inquirers that the present dullness of the stock market and depressed financial conditions constrain it not to endeavor to push General Motors shares at this time.

### Staver Separates its Interests.

The Staver Carriage Co., of Cincinnati, O., making the Staver car, has formed a separate corporation for its automobile interests. The new company, which is incorporated under Ohio laws, is known as the Staver Motor Car Co. At a meeting of the stockholders the following officers were elected: George W. Platt, president; Parker K. Gale, vice-president; Stanley M. Adams, secretary; L. K. Emerson, treasurer.

### Belmont Revived in Castleton.

The Belmont Automobile Co., of New Haven, Conn., the assets of which were sold at auction not long ago in the winding up of its bankruptcy, is to be revived in Castleton, N. Y., where it originated. Factory space has been taken in the building of the A. C. Cheney Piano Action Co.

## MAKERS KNOW WHERE THEY STAND

### Have Facts that Discount the Belated "Hotel Lobby" Panic—Eye Opening Discoveries as to Demand.

Uneasy and almost panic fears that exist in some minds as to the immediate future of the automobile business as a whole do not seem to be justified, but are the morbid developments of the "hotel lobby circuit," according to observations and investigations by a tradesman who has peculiar opportunities for keeping in touch with conditions as they actually are and for sounding the real views of the executive heads and sales managers of the bigger companies. Having probed directly for the facts during a trip which he has just completed, he declares that while there is something of a "shake down" period in progress, the true situation is quite different from what even some of the "wise ones" imagine, and that the main cause for such present alarm as exists is to be found in what may be described as "too much wizardry."

"Unlike most business propositions," he declares, in giving the Motor World the results of his information-seeking journey, "it is difficult to reduce conditions of confidence or of panic to statistical terms so that one may be weighed against the other in mathematical exactness, but it is possible to learn who is and who is not frightened and to determine the soundness of their reasons for fear or confidence. On this basis I can say that the big men of the trade see things much more clearly and through an entirely different tint of spectacles from some of the hotel lobby alarmists.

"Every thinking man in the trade knows that a shake down was inevitable at this time, and with few exceptions the big fellows provided for and discounted it months ago. Trade observers in the cities have awakened to the fact that some of the

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agents or branches in the larger places are not doing the enormous business that in a way had been expected, and have come to the conclusion that some grave situation confronts the makers.

"With production apparently mounting to the full limit of the demand, the makers have been keenest of all in finding out where they stand. In a spell of conservative caution, a good many of them wrote to their agents advising the latter to be careful not to bite off more than they could chew for the 1911 season and to order no more cars than they could be sure of selling. The caution was gracefully accepted in the case of some of the agents in the big cities, but the agents in the smaller places could not understand what the manufacturers were driving at, as their prospects of business never were brighter.

"So uniform was the experience of the manufacturers in this respect that the truth has been forced on them that the preponderance of next year's business is going to be done in the smaller cities and towns. One of the biggest companies in Detroit says that 87 per cent. of its huge output during 1911 is going to towns that are not big enough to have trolley cars. The more prominent makers have had such able and aggressive representation in the big cities and have fought in such hard competition for the big city trade, that for some time to come they cannot look for much further developments of their markets there, but the small towns are ripe for the harvest.

"Seeing that conditions are at a standstill in the big cities and hearing the wails of some of the agents in the bigger places over the fact that sales are not continuing to grow at the old rate, some of the hotel lobby observers are frightened as to the outcome, because they have no means of knowing the great strength of demand that is showing itself outside the big places and which in the aggregate so completely overshadows the city demand as to eclipse the latter into insignificance.

"The same sort of fear having assailed the manufacturers long before it did the outsiders, they modified and trimmed down the expansion plans which most of them had entertained, and in many cases will not make any more cars than for 1910. This limitation of output, in the face of the prodigious demand which has been discovered in the districts outside the large cities, gives promise of resulting in an excellent balance of supply and demand next year, instead of a glutting of the market.

"It is true that the time has arrived when the manufacturers must give more thought to expanding their markets than to expanding their production. They have applied themselves to this selling task in good time, and the great field which they have discovered outside the cities gives them as sure a guarantee as they could wish for that they will have plenty of business next year. Those who enjoy a good name and a reputation for producing good cars have no reason whatever to fear for an inadequate market for 1911.

"Disturbing conditions have been presented in ill-advised manufacturing attempts on the part of a number of new concerns in Detroit and in individual overproduction by a Michigan concern which has found it necessary or seen fit to slash its own retail prices all over the country in order to move its output and get money. The offering of such cars at cut prices has had its effect in creating uneasy sentiment, and the difficulties that makers who have over-reached themselves have had with the bankers has brought unpleasant consequences on the trade in general. These things, however, have assisted in determining the majority of the makers on conservative limitations of production, and in making it clear that new makers cannot come into the field successfully unless they have offerings of some exceptional merit or of a specialized character to meet some particular demand that is not already provided for. With production thus kept down, and a rich market opened to the established manufacturers, the latter, with the orders already on their books, regard the belated hotel lobby panic as an amusing but unimportant phenomenon."

### Broadwell Gets a Great Send-off.

Other men in the trade who were about to make a change of base have been given "send-offs," but it is doubtful if any of them ever received a more royal one than was tendered Edward H. (Ned) Broadwell on Thursday evening last, 1st inst., by his fellows of the New York trade. The day before, Broadwell had laid down the vice-presidency and New York management of the Fisk Rubber Co. to take up the vice-presidency and sales management of the Hudson Motor Car Co., which change required that he take up residence in Detroit.

He long ago had made himself uncommonly well known and well liked in the metropolis, and on the eve of his departure a few of those—to the number of nearly 100—who know and who like him joined hands to make his going memorable. It proved a send-off which Broadwell is unlikely ever to forget. It took the form of a farewell banquet at Churchill's. There was much that was good to eat, much that was good to drink and much that was good to listen to. There were speeches by E. R. Hollander, Alfred Reeves, A. G. Batchelder, E. R. Rockwell and former Senator Slater, and they all breathed tribute to the good fellowship and business worth of Broadwell. There also arrived during the banquet a flood of telegrams from absent friends expressing their best wishes for the guest of the occasion, the sentiments literally crystalizing in the form of a diamond ring which, through President Wyckoff, of the Motor Racing Association, who presided, was presented to Broadwell as concrete evidence of the appreciation in which he is held. As a climax, he was placed on a table and lifted to the ceiling while the banqueters joined hands and performed a "ring around the rosy" dance in his honor.

Nor did the honors to Broadwell end at the banquet. On Saturday when he strolled into his old place, the Fisk branch, to say good-bye, he was held up by Louis N. Mansuay, of the sales staff, who in the name of the employes presented him with a hundred dollar cut glass punch bowl.

### Canadian Ford Pays 100 Per Cent.

Stockholders in the Ford Motor Company of Canada, Ltd., of Walkerville, Ont., have received a cash dividend of 100 per cent. as a result of the operations of that concern during the last few years. The company started in 1904 and has a capitalization of $100,000. There are about fifty stockholders, the majority of whom are Canadians, but the controlling interest is held by Henry Ford, president; James Couzens, vice-president, and G. M. McGregor, secretary-treasurer. Last year the dividend was 25 per cent. The company makes the same machine as that made by the parent company in Detroit. About 10 per cent. of the output goes to Australia, while New Zealand, India, South Africa and other British possessions take a share of the shipments, although the shipments of Ford cars to Great Britain itself are made from the Detroit factory.

### Ideal Electric Completes Reorganization.

The Ideal Electric Co., of Chicago, Ill., has completed its reorganization, following the death of its president some weeks ago. The new officers of the company are: Bruce Borland, president; Edwin W. Ryerson, vice-president; Uri B. Grannis, treasurer; Cyrus H. Adams, jr., secretary, and C. J. Holdrege, general manager. The capital stock of the company has been increased to $50,000. An office and salesroom is to be opened at 1328 Michigan avenue, Chicago, in the near future.

### Shaler Absorbs the Stitch-in-Time.

The C. A. Shaler Co., of Waupun, Wis., has completed negotiations for the purchase of the patent rights and entire business of the Stitch-in-Time Vulcanizer Co., of Topeka, Kan. The Shaler company manufactures portable electric vulcanizers, while the Stitch-in-Time products have been chiefly gasolene heated vulcanizers of the portable type. The combining of the patent rights and business of the two concerns results in the strengthening of the Shaler company in the portable vulcanizer field.

### Creditors Take Charge of Guarantee.

The Guarantee Auto Supply Co., 65 Cortlandt street, New York City, is in the hands of its creditors. The latter are taking steps to effect the wisest disposal of the assets.

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## EXPORTS STILL EXCEED MILLION

### Statistics for July Show Continued Strong Demand for American Cars—Canada Remains Heaviest Purchaser.

With the exception of France and the West Indies all the fourteen geographical divisions took more American-made automobiles during July of this year than in the same month of 1909, the figures being $1,224,295 and $962,243 respectively. Of this total the complete cars accounted for $1,034,483, this being the rated value of the 761 cars exported, while the parts, not including tires, were valued at $189,812. The number of cars exported in July, 1910, compares favorably with that of July, 1909, in which month the total number cars exported was 470.

In the list of buyers British North America still occupies the premier position, with its imports of $465,920, as against $361,581 in July of last year. Great Britain, with $309,421, registers a sudden drop from the high mark of last month, $617,371, and even compares poorly with the figures for June, 1909, when $333,294 worth of American cars were sent to the United Kingdom. France, which only last month was the third largest buyer, dropped to sixth place, its figures for July, 1910, being $60,038, as compared with $102,839 in the same month of the preceding year. Germany remained stationary with its figures of $58,420 and $56,924, respectively, although it was pushed down from fourth to seventh position by the great increase in the trade with Mexico, Other Europe and British Oceania. The greatest actual increase was shown by Other Europe, which took $87,639 worth, as against $21,884 worth in the same period of last year.

The figures for the seven months ending July, 1910, show substantial gains for all divisions except France. Here also British North America leads by a big margin, with $3,490,714; the United Kingdom is second with $2,081,977; France holding its third place with $598,038. The record in detail:

| | July | | Seven months ending July | | |
|---|---|---|---|---|---|
| | 1909 | 1910 | 1908 | 1909 | 1910 |
| Automobiles | $874,685 | $1,034,483 | $3,223,166 | $4,550,019 | $7,369,486 |
| Parts of (not including tires) | 87,558 | 189,812 | 390,775 | 425,870 | 1,272,058 |
| Automobiles and parts of—Exported to— | | | | | |
| United Kingdom | 333,294 | 309,421 | 1,365,561 | 1,508,846 | 2,081,977 |
| France | 102,838 | 60,038 | 510,758 | 661,071 | 598,038 |
| Germany | 56,924 | 58,420 | 123,531 | 139,788 | 235,438 |
| Italy | 2,068 | 14,296 | 219,136 | 214,345 | 340,119 |
| Other Europe | 21,884 | 87,639 | 164,554 | 243,881 | 524,375 |
| Canada | 361,581 | 465,920 | 692,836 | 1,439,930 | 3,490,714 |
| Mexico | 22,571 | 65,864 | 187,034 | 272,722 | 361,102 |
| West Indies and Bermuda | 18,730 | 14,153 | 105,523 | 175,448 | 247,345 |
| South America | 5,430 | 33,602 | 79,850 | 95,722 | 226,208 |
| British Oceania | 22,097 | 62,842 | 37,734 | 106,797 | 194,283 |
| Other Asia and Oceania | 7,585 | 36,452 | 88,273 | 55,691 | 234,155 |
| Other countries | 7,240 | 16,648 | 39,151 | 61,648 | 107,790 |
| Total | $962,243 | $1,224,295 | $3,613,941 | $4,975,889 | $8,641,544 |

### New Chain Company Locates in Detroit.

William P. Culver and A. B. Taylor, formerly of the Diamond Chain & Mfg. Co., of Indianapolis, Ind., have organized the Culver Chain Co., of Detroit, Mich., capitalized at $50,000. Culver is the president and Taylor the vice-president and treasurer; N. P. Jones, of the Grant-Jones Automobile Co., is secretary. The company has leased a three-story building at No. 140 Madison avenue, and will commence the manufacture of roller chains for motor wagons and trucks, although it is planned subsequently to produce chains for pleasure cars, motorcycles, bicycles and machinery.

### Cothran Gets Fisk's New York Branch.

Jay B. Cothran has been appointed manager of the New York branch of the Fisk Rubber Co., Chicopee Falls, Mass., to fill the vacancy left by the resignation of E. H. Broadwell, who has become general sales manager and a vice-president of the Hudson Motor Car Co., of Detroit, Mich. Cothran is well known in the tire trade, having been connected with the Diamond and Goodrich companies previous to a recent connection with Wyckoff, Church & Partridge.

### Portage to Swell Akron's Tire Output.

The Portage Rubber Co., which recently was organized in Akron, O., with a capitalization of $1,000,000, is to take over the business of the Union Rubber Co., of Barberton, O. It will manufacture solid and pneumatic tires and a general line of rubber goods. The directors are Will Christy, John W. Miller, James Christy, W. S. Long, Dayton A. Doyle, John Kerch, Arthur S. Mottinger—all of Akron—and Hayward H. Kendall, of Cleveland.

### Muskegon Gives Bonus for Radiator Plant.

On promise of a bonus of $10,000, the Wright Cooler & Hood Co., of Chicago, Ill., has agreed to move to Muskegon, Mich. The plant will be located at Clay avenue and Eighth street, and the company has pledged itself to employ at least 100 men in the manufacture of automobile radiators and fittings.

## CARPLES ON FOREIGN CONDITIONS

### After Three Months Spent Abroad He Finds Them Healthy and Normal—Makers Keen for Export Trade.

James M. Carples, general manager of the Licensed Automobile Dealers' Association, who just has returned from a three months stay in Europe, met the members of the United States Tariff Board in Paris on July 4th, and was appointed special tariff commissioner to investigate automobile production costs. He has finished his work on the Continent and in England and now is ready to proceed with his investigations in this country. He stated that the information which he had secured was of a confidential nature, and that he could not say, at the present time, whether or not the Government will publish it.

Speaking as the general manager of the Licensed Automobile Dealers, Carples said that he had visited every factory of consequence in France, England, Germany, Belgium, Italy and Switzerland and had found the conditions normal and healthy.

"There is no overproduction and no wildcat schemes are on foot to discourage production and capital," he said. "The Continental manufacturer seems to be trying his best to build a sufficient number of good cars to supply the demand. His energies bent in this direction, he is not making any frantic effort to force the growth of this demand—except in one direction, export. All foreign motor car makers are anxious for export business, and give to the wants of the export trade their best attention, as well as an inducement of a 5 to 10 per cent. discount over the local trade.

"Germany and France foster the commercial or freight vehicle industry, and the development of this field under the patronage of the government have been exceedingly rapid. The subsidy offered by the government to the makers, to produce trucks that will last, has had two results: first, the makers' striving to satisfy his government, knowing he will find an outlet for his product when this is done; and, second, the government investing in these vehicles, it takes care to build good roads.

"Much has been said here about financial stringency and depression and even a coming crisis. I for my part certainly cannot see the reason for it. There is no cause for fear. It appears from my travels and investigations that the cereal crop on the Continent is a failure, and the fruit crop is absolutely ruined by the heavy rains. Large orders for delivery have already been received here, and before the end of the year the United States will be the biggest seller in the world. So, with prosperity staring us in the face, I see little cause for calamity howling."

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### THE WEEK'S INCORPORATIONS.

Madison, Wis.—Meiselbach Mfg. Co. changes its name to Crown Commercial Car Co.

Cleveland, Ohio—Hupp Motor Sales Co., under Ohio laws; to deal in automobiles. Corporators—F. Love, A. H. Homan, John Rauch.

Boston, Mass.—Boston Garage Co., under Massachusetts laws, with $50,000 capital; to maintain a garage. Corporators—Paul M. Hubbard, J. Duke Smith.

Detroit, Mich.—Culver Chain Co., under Michigan laws, with $50,000 capital; to manufacture automobile chains. Corporators—W. Culver, Arthur Taylor.

Duluth, Minn.—Interstate Auto Co., under Minnesota laws, with $25,000 capital; to deal in automobiles. Corporators—W. G. Baldwin, J. T. Placha, J. A. Smith, C. S. Lawson.

Chicago, Ill.—Marion Motor Car Co., under Illinois laws, with $10,000 capital; to deal in automobiles. Corporators—Robert E. Maypole, Alvar A. Landry, George R. Carpenter.

Minneapolis, Minn.—Stroud Carburetor Co., under Minnesota laws, with $10,000 capital; to manufacture automobile carburetters. Corporators—B. E. Stimson, C. M. Stroud, O. W. Close.

Fitchburg, Mass.—Bickford Auto Livery Co., under Massachusetts laws, with $10,000 capital; to deal in automobiles. Corporators—Orlando E. Bickford, Ernest C. Ford, Richard B. Lyon.

Boston, Mass.—Hodges Garage Co., under Massachusetts laws, with $20,000 capital; to deal in automobiles and motor vehicles. Corporators—Henry B. Hodges, Chas. A. Atkins, Nellie N. Hodges.

Indianapolis, Ind.—Cecil E. Gibson Motor Car Co., under Indiana laws, with $25,000 capital; to deal in automobiles and motor vehicles. Corporators—Cecil E. Gibson, W. R. Wheeler, I. M. Holmes.

Connersville, Ind.—Ye Motor Shop, under Indiana laws, with $10,000 capital; to do general automobile and garage business. Corporators—F. B. Ansted, I. R. Ansted, H. M. Williams, A. A. Ansted.

Fort Worth, Tex.—Fort Worth Automobile Supply Co., under Texas laws, with $2,500 capital; to deal in automobile accessories and supplies. Corporators—P. M. Devitt, R. M. Devitt, P. McInnis.

Chicago, Ill. —Peerless Motor Car Co. of Illinois, under Illinois laws, with $60,000 capital; to manufacture automobiles and accessories. Corporators—Louis E. Hart, Jasperson Smith, Dunne T. McNabb.

Troy, N. Y.—Belmont Motor Vehicle Co., under New York laws, with $25,000 capital; to deal in automobiles and supplies. Corporators—Arthur B. Cheney, H. G. Ingalls, O. D. Woodford, of Castleton.

Portland, Me.—Walden W. Shaw Livery Co., under Maine laws, with $1,000,000 capital; to manufacture and deal in automobiles, taxicabs, motor cars and vehicles. Corporators—C. E. Eaton, A. F. Jones.

Ticonderoga, N. Y.—Behringer Radiator Works, under New York laws, with $100,000 capital; to manufacture and sell sectional automobile radiators, etc. Corporators—H. Behringer, C. Lynn, E. Behringer.

Boston, Mass.—F. R. Parker Co., under Massachusetts laws, with $50,000 capital; to manufacture and deal in automobiles. Corporators—Frank R. Parker, Clarence C. Colby, James A. Murphy, all of Boston, Mass.

Columbus, Ohio—Columbus Auto Sales Co., under Ohio laws, with $10,000 capital; to sell and rent automobiles and equipment. Corporators—Charles, Frank S., Mary W., Iva E. Cummins, and Virgil L. Fishbaugh.

Chillicothe, Ohio—Scioto Auto Car Co, under Ohio laws, with $150,000 capital; to manufacture and deal in automobiles, motors and motor vehicles. Corporators—F. C. Arbenz, Richard Enderlin, C. A. Fromm, R. W. Hanley.

Pleasantville, N. J.—Atlantic City Riviera Parkway-Ocean Pier Co., under New Jersey laws; to construct ferries, airships, amusement structures, automobiles, tracks, etc. Corporators—S. J. Clark, R. P. Thompson, G. Shaw.

Philadelphia, Pa.—H. S. Auto Switch Co., under Pennsylvania laws, with $50,000; to manufacture electric switch for automobile motors under letters patent. Corporators—Charles H. Hutchinson, George A. Schenk, E. L. English.

New York City, N. Y.—Aerial Manufacturing & Supplies Co., under New York laws, with $50,000 capital; to manufacture aeroplanes, gliders, automobiles, hydroplanes, etc. Corporators—Samuel Shethar, John Loughran, Chas. H. Stoll.

Indianapolis, Ind.—Great American Automobile Co., under Delaware laws, with $1,500,000 capital; to manufacture automobiles and other motor vehicles. Corporators—Samuel Quinn, Jr., Chas. N. Less, L. H. Van Briggle, all of Indianapolis.

Lockport, N. Y.—Harrison Radiator Co., under New York laws, with $50,000 capital; to manufacture radiators, automobile machinery and other appliances. Corporators—W. H. Upson, B. V. Covert, O. A. Loosen, H. C. Harrison, all of Lockport.

Hartford, Conn.—Carl H. Page Associates, under Connecticut laws, with $17,000 capital, of which $1,400 are paid in; to buy and sell automobiles, and conduct a garage. Corporators—James J. McKenna, Harry Unwin, Joseph W. Ball, all of New York.

### Increases of Capitalization.

Freeport, Ill.—Stover Engine Co. increases capital from $125,000 to $130,000.

Minneapolis, Minn.—Electric Carriage & Battery Co. increases capital to $100,000.

Connersville, Ind.—Lexington Motor Car Co. increases capital from $50,000 to $100,000.

### Changes Among Prominent Tradesmen.

Changes have been made in the New York representation for Stoddard-Dayton cars, the Dayton Motor Car Co., of Dayton, O., having appointed H. M. Browner as manager of the Metropolitan branch. Richard Newton returns to Newark, N. J., to manage the branch in that city, and E. C. J. McShane, recently manager at Newark, is to be head of the Brooklyn branch, which is to be opened at St. John's place and Bedford avenue. The Courier car, made by a subsidiary of the Dayton Motor Car Co., in the future will be known as the Stoddard "20."

Burton Parker has been appointed advertising manager of the Willys-Overland Co., with headquarters at the Toledo (O.) factory. Parker brings a ripe fund of experience to his new position. He spent nine years in the service of the Hartford Rubber Works Co., four years with the Fisk Rubber Co. and also successively served the Pope Mfg. Co., the Olds Motor Works and the Michelin Tire Co., and latterly was a member of the staff of a well known advertising agency.

H. L. Johnson, the Boston manager for the Premier Motor Mfg. Co., Indianapolis, Ind., has been called to the factory to accept a position of responsibility in the sales department. He leaves Boston on September 15th for a two weeks vacation and will assume his new duties on the first of October.

C. T. Paxton has resumed his former duties as manager of the Buffalo sales department of the E. R. Thomas Motor Co., of that city. He was transferred to Chicago a year ago to open the company's branch in the Windy City.

Bert Collins, superintendent of the Peerless Motor Car Co., of Cleveland, O., has resigned to go with the Lozier Motor Co. He will occupy a similar position in the new Lozier factory in Detroit, Mich.

W. L. O'Neil has been appointed manager of the New York branch of the Stromberg Motor Devices Co., of Chicago, Ill. He will make his headquarters at 1926 Broadway.

William F. Adams has been appointed manager of the Boston branch of the Grout Automobile Co., of Orange, Mass. He will make his new headquarters in the Motor Mart.

F. G. Seitz has been appointed Philadelphia manager of the Olds Motor Works, of Lansing, Mich. Until recently he was assistant sales manager of the company at its home office.

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## IN THE RETAIL WORLD.

H. Paulman & Co., Pierce-Arrow agents in St. Paul, Minn., has moved into new quarters at the corner of West Sixth and Exchange streets.

A new garage is in course of construction at the Portstown bridge, Huntingdon, Pa. The management will be in the hands of S. G. Wilson and J. E. Sexton.

The Jones Auto Exchange has moved its new quarters on North Topeka avenue, Wichita, Kan. J. J. Jones is the manager of the concern, which handles Ford cars.

The John Deere Plow Co., of Little Rock, Ark., has been appointed state agent for the Hupmobile. The company's headquarters are at 1120 East Markham street.

Fire destroyed the garage of R. W. Powers in Anawan street, Fall River, Mass. The total damage amounted to only $3,200, as most of the cars on hand were removed in time.

The Colombia Garage is the style of a new concern which just has engaged in business at 41 Ivy street, Atlanta, Ga. Vincent J. Hurley and Allen W. Renfrew are in control.

C. J. Webster, an Oklahoma City banker, has organized a company to handle the Owen car; Webster's company will have the Owen agency for the entire state of Oklahoma.

The Glunz-Kearns Auto Co., of Ft. Scott, Kan., has sold out its business to J. F. Hendricks, operator of the only taxicab in the town. The agency for Mitchell cars is included in the sale.

Under the style the Wayne Garage Co., a company has been formed to operate at 1129 Wayne avenue, Germantown, Pa. The garage which is in course of construction is 167 x 69 feet and will cost $4,500.

Glenn Wicken, owner of a garage at Walden, N. Y., has invaded Bushkill, Pa., and is building there a garage and blacksmith shop. He will sell supplies and accessories in addition to doing repair work.

Abbott Slug, a machinist of South Bethlehem, Pa., is building a garage and machine shop on the north bank of the Lehigh river, near South Main street. The structure will be 60x30 feet, of brick and concrete.

Work has been started on the building of a garage for the Bartlett Garage Co., of Philadelphia, Pa., at the corner of Twenty-first and Market streets. The structure will be four stories high and will cost $100,000.

Julian Barnes, formerly with the Goodyear Tire & Rubber Co., has entered into partnership with his brother, Theodore Barnes, under the style Theo. Barnes & Co., at Washington, D. C. They will handle Pullman cars.

J. G. Edwards, of Hay Creek, Ore., has purchased the property at the southeast corner of Union avenue and East Burnside street, and will erect a garage thereon. The structure is to be two stories high and to measure 50x100 feet.

Montgomery Baggs and W. B. Cochran, guiding spirits of the Haynes Auto Sales Co., at San Francisco, Cal., have opened new headquarters at the corner of Van Ness avenue and Turk street. Haynes cars will be dealt in exclusively.

Blackburn & Turner is the style of a new firm which has been formed in Ellwood City, Pa. Their garage will be two stories high, of brick and concrete, and will be located on Spring avenue. It will be ready for occupancy about October 1st.

S. Y. Turner and P. M. Sprowls have formed a partnership in Los Angeles, Cal., and will enter the garage business. They are building an up-to-date structure for this purpose on Olive street, which will be 50 x 155 feet and will cost $50,000.

Under the style the Jungclas Auto Co., a new firm has entered the garage business and opened headquarters at Reading road and Maple avenue, Cincinnati, O. The building is said to be absolutely fireproof and roomy enough to house 100 cars.

Having obtained a generous slice of Owen territory, F. J. Long, of Atlanta, Ga., has embarked in the business in that city. His territory includes the states of Florida, North Carolina, South Carolina, Mississippi, Tennenssee and Alabama.

Reamer & Haines, of 2214 Spring Garden street, Philadelphia, Pa., who hitherto have confined themselves to electrics, have enlarged their sphere and in the future will act as agents for the Petrel gasolene cars. The electric vehicles will be continued.

The old foundry building on Union street, Dundee, N. Y., is to be torn down to make room for an up-to-date garage. E. L. Balley is the owner of the property, which is 63x100 feet and part of the Dundee Electric Light plant, of which Balley is president.

Under the style United Motors Des Moines Co., a branch of the United States Motor Co. has been established in the Iowa city of that name. The establishment included the purchase of the Capital Auto Co., the manager of which will continue as treasurer of the branch.

The Broadway Automobile Exchange, one of the largest dealers in second-hand cars in New York City, soon will move into its new factory and storage rooms at Fifty-eighth street and Eleventh avenue. L. C. Jandorf is president of the concern, which employs 100 men in the reconstruction and repair of used cars.

The Linkroum Automobile Co., formerly distributor of Lozier cars in New Jersey, has been absorbed by the New York branch of the Lozier Motor Co. S. H. Stern, manager of the Linkroum company, continues in the service of the Lozier company, as sales manager for the territory formerly controlled by the Linkroum concern.

The Henderson Motor Co., southern branch of the Henderson Motor Sales Co., has opened headquarters for the southern territory, embracing Virginia, the Carolinas, Tennessee, Georgia, Alabama and Florida, at 226 Peachtree street, Atlanta, Ga. The company will handle the Cole "30" and Westcott "45-50" cars exclusively.

A four-story garage to cost between $75,000 and $100,000 is in course of erection at the corner of Twenty-first and Washington streets, Portland, Ore. The property is owned by J. G. Edwards and is 120x130 feet. The building is of reinforced concrete and is said to surpass in equipment any similar building in the West.

William S. Grady, of Lowell, Mass., has taken the agency of Regal cars for Lowell, Lawrence and other towns in that vicinity, and will establish a garage at the corner of Bridge and Paige streets, in the premises formerly occupied by the Lowell Electric Light Corporation. In addition to handling the Regal cars he will carry a full line of accessories and supplies.

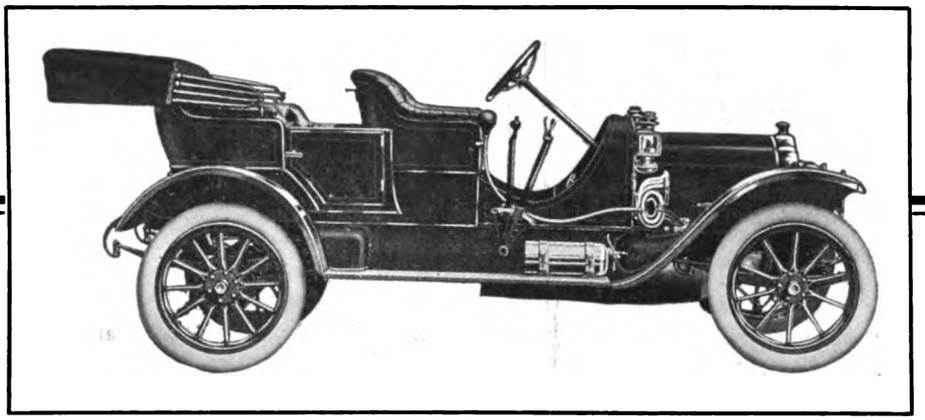
F. J. Wallace and F. H. Keller are the active heads of the Washington Auto Co., which just has been formed at Indianapolis, Ind. The concern has opened an immense garage at the corner of Pine and East Washington streets, capable of holding 150 cars. The garage also will be used by the Taxi-Transfer Co., a new company chartered to operate taxicabs in Indianapolis.

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### New York Garagemen at Odds Over Rates.

Proposals for concerted action in the raising of garage rates on the part of all garages in the downtown section below 110th street, Manhattan, has caused friction in the ranks of the Garage Owners' Association, of New York City, and has resulted in the resignation of George Edward Shaw, of the Columbus Garage, 102 West 107th street, as president of the association. Shaw declares that he has lost $30,000 in less than five years as owner of the largest garage in Manhattan, and that he would lose all of his business if he attempted to put in effect the scale of charges that other garage owners propose. Peter H. Hoyt, of Hoyt & De Mallie, succeeds him as president of the association. The downtown garages in the past have been charging from $15 to $30 per month for storage, according to the location of the garage and the type of car. The storage rates which are proposed for them after September 1st are as follows: Five passenger touring cars, $30 per month; seven passenger touring cars, $35 per month; limousines and all closed cars, $40. Some of the garages announce their intention of putting this scale into effect, while others will make only slight advances over their present rates.

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# The Long-Stroke Engine—An Explanation

THE long stroke engine must economize in the use of gasoline, and we will try to make it plain—very plain—just why. You know whether you prefer to fill a gallon crock or a quart measure (if you had to pay for it). The gallon crock is the large-bore, short-stroke motor—the tall quart measure represents the medium bore, with the long stroke—both must be filled with gasoline in automobile work.

Of course the gallon crock has a greater capacity than the quart measure, but the greater capacity does not produce proportionately greater power. For example, you know that your revolver will not shoot so far nor penetrate so deeply as your rifle, using the same cartridge. In firearms we call it the length of barrel, and explain it by saying, we get the benefit of the whole expansion of the gas. In automobiles it is the same thing, but we call it the length of stroke. In a rifle we get results because there is but one direction for the gas to expand—the length of the barrel—in automobiles, if there is but one direction in which to expand, and that dimension is sufficiently long, we get the full power.

# White Motors Economical

The above tells the whole story of the remarkable performance of White gasoline cars and trucks, from a standpoint both in power and fuel consumption.

The four cylinders of the White motor are more nearly rifle-barrels than any others, consequently less of the explosive medium is required to produce the high-power rifle results. One other advantage follows: because White motors are not large and unwieldy, White cars are of moderate size and weight, consequently go over the roads more easily and easier upon the tires and other items of maintenance.

Catalogues, testimonials and other literature gladly sent upon request.

# THE WHITE COMPANY

**830 EAST SEVENTY-NINTH STREET CLEVELAND, OHIO**

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## The Necessity for Moderation.

For the successful pursuit of that happiness made possible by the use of motor cars, moderation, as in all things, is necessary. It is easy to abuse or overdo even a good thing, and evidence is not lacking that there are not a few motorists who are inclined that way. They measure their pleasure by miles or minutes or both. "How far" or "How fast" appear to be their guiding principles.

The speed maniac, pure and simple, always has been with us in greater numbers or less, but happily he is either less numerous or less conspicuous at present than once was the case. There remain, however, even now many more motorists who, if they are not of the split-second, slam-bang type, nevertheless incline to take their pleasure swiftly—too swiftly—while there are as many more who, if not so intent on giving answer to the "How fast?" query, are as interested in discovering how far they can travel between sunrise and sunset.

In too many instances these conditions prevail in respect to family parties avowedly on pleasure bent. In one case which recently came to notice four cars filled with such parties all left the same town one morning and, despite some rough, mountainous going, reached New York, nearly 250 miles distant, the same evening; in another case the family drove from New York to Boston, about the same distance, in one day, the women folk arriving so stiff and travel sore that they were unfit to resume their journey the next morning; in still another instance, the man of the family who steered the car so blistered his hands that they required bandages.

These are not isolated cases. The tours in question all occurred within the course of a few days of each other and knowledge of their results was obtained merely in the course of incidental conversation between mutual acquaintances. They serve to show, however, how such a good thing as the use of the motor car can be abused and suggest strongly the need for preaching and disseminating the doctrine of moderation. In a smoothly running car, miles and minutes slip away so easily that the temptation to over-indulge is not readily resisted. But as is the case with over-indulgence of whatever sort, there is danger of dulling the appetite and causing the pleasurable to become more or less repugnant. Anything that can be done to counteract such tendencies should be done.

It is worth while recalling that is was a somewhat similar abuse of the bicycle—a too prevalent desire to go either too fast or too far—to "ride the thing to death," as it were, that contributed to the fall of that useful and health-promoting vehicle.

## The Need for Universal Lamp Laws.

Saving a man from himself probably is one of the most thankless and most difficult efforts it is possible to undertake. The average man apparently does not desire to be saved until he is beyond saving or well nigh beyond it, at any rate, particularly if the effort to do so involves expense or inconvenience on his part, however slight.

Nothing better serves to illustrate the point than the disinclination of most owners of horse-drawn vehicles to provide themselves with lamps for night travel and the indifference of the police authorities to the enforcement of laws requiring the use of such lamps where such laws exist. In many, in fact in most instances, the disinclination of the horsemen finds expression in strenuous opposition to the enactment of legislation of the sort when it is proposed and usually they find vigorous and shouting supporters in the legislative halls. Always they object to the slight cost and slighter inconvenience the use of lamps entails and with the aid of their political friends it is made appear that such enactments primarily are for the benefit of automobilists.

The horsemen and their friends either cannot or will not see that a lighted lamp after nightfall is in the nature of a life preserver for the person using it, it matters not what form of vehicle he may employ. It is just as necessary and serves the same purposes on the highways of the earth as on the highways of the sea, and it is not too much to say that the person who does not display such a guiding signal is guilty of semi-criminal carelessness.

The idea that the driver of one type of vehicle only shall display such lights and that the burden of avoiding accident with an unlighted vehicle of another type shall fall on him is such apparent and rank injustice that it scarcely should require remark. When an automobilist is so unfortunate as to become involved in such an accident a hue and cry usually results, and, regardless of circumstances, the disposition prevails to blame the man in the motor car. As a matter of fact, however, the automobilist who is not more than ordinarily careful when driving at night is the rare exception. Despite too popular belief to the contrary he has every wish and every anxiety to avoid accident, but however careful the unlighted vehicle is a constant menace to his safety and an even greater menace to the safety of those who occupy it, even if they so often refuse to recognize the truth. Even at a slow pace it does not require much force for a collision to result disastrously to the frail buggies which are the worst offenders.

The need for universal lamp laws is real and urgent and nightly becomes more important. Those who oppose their enactment or who fail to enforce them where they have been enacted are the ones who primarily are responsible for practically all accidents that may occur. Such laws, too, should require the lighte to be adequate and not mere glimmerings which now so often

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are made to serve; and if the lamps designed for use on bicycles and carriages were provided with a rear real lens and not merely a birdseye ruby the safety of night travel would be further increased. Several lamps of the sort have been produced abroad, and American manufacturers also profitably employ such lenses.

If papers and persons and associations interested in the safety of road travel and in saving life and limb paid more heed to such matters and would assist in inducing horsemen to appreciate that a lamp at night is not short of a life preserver, they would better attain the ends which they seek to serve.

The new identification card system for motorists which was put in force by the police of Greater New York on Thursday last will doubtlesss subserve many minor purposes never thought of by the originators. For instance, the cards probably will be accepted as vouchers by banks for the cashing of small checks. Furthermore, they will do away with the need of identification tags, long appended to key rings and suspender buckles. Such cards, with photographs have been required by many railroads on mileage books and passes until a comparatively recent date. Since motorists seem prone to accidents, the new cards ought to prove especially handy in that respect. Dyed-in-the-wool joy riders, however, will not like the scheme which makes their identity an open book, but their neglect in not having provided themselves with such pasteboards soon may be considered presumptive evidence of a disposition to exceed legal speeds.

One of the most progressive of automobile manufacturing concerns announces that hereafter, as an accommodation to aviators, the tops of all the trucks it turns out will be lettered as regularly as the sides. The idea is not strictly new, having been adopted by many merchants with the growth of skyscraping flat and office buildings in the larger cities, before the realm of Dobbin was invaded. The man who is enough up to date in his business to use motor trucks usually reaches ahead for other things. An instance in point is shown by an Italian vegetable peddler in Brooklyn, who has painted on the top of his cover: "Oh, ma; here comes Mike!" First the novelty of his equipage gives him distinction. Then people reflect that as his gasolene outfit brings the garden-sass to their doors quicker, it must usually be fresher. The lettering on the top attracts the attention of persons who are getting up in the world to the cover, and without realizing it customers begin to discriminate between the dealer who has a cover to protect his wares and the huekster who exposes his merchandise to the dust and rain of suburban and city roads.

## COMING EVENTS

September 7-10, Buffalo, N. Y.—Automobile Club of Buffalo's touring reliability contest; 800 miles.

September 9-10, Providence, R. I.—Rhode Island Automobile Club's annual meet at Narragansett Park.

September 10, Minneapolis, Minn.—Automobile races at state fair grounds.

September 10, San Francisco, Cal.—Automobile Club of California's Portola road race in Golden Gate Park.

September 10-12, Seattle, Wash.—Seattle Motor Club's race meet.

September 14, Kalamazoo, Mich.—Automobile races.

September 15, Oklahoma City, Okla.—Oklahoma Automobile Association's hill climb.

September 16, Algonquin, Ill.—Chicago Motor Club's fifth annual hill climb.

September 17, Syracuse, N. Y.—Automobile Club of Syracuse-Syracuse Automobile Dealers' Association joint race meet at fair grounds track.

September 17, Newark, N. J.—New Jersey Automobile and Motor Club's sociability run.

September 17, Toledo, O.—Toledo Fair Grounds Asociation's race meet.

September 18, Los Angeles, Cal.—Annual road race up Mount Baldy.

September 18-20, Elmira, N. Y.—Automobile races at Tompkins county fair.

September 20, Omaha, Neb.—Inaugural meet on Omaha Motor Speedway.

September 20-22, Louisville, Ky.—Louisville Automobile Club's annual reliability and endurance run.

September 21, Atlanta, Ga.—Atlanta Automobile Association meet on speedway.

September 24, Narbeth, Pa.—Norristown Automobile Club's race meet.

September 26-29, St. Louis, Mo.—Third annual national good roads convention.

September 30-October 4, Minneapolis, Minn.—Minneapolis "Tribune" reliability run to Aberdeen, S. D., and return.

October 1, Long Island Motor Parkway, N. Y.—Motor Parkway Sweepstakes.

October 1, Mineola, L. I.—Sixth annual Vanderbilt Cup race on Long Island Motor Parkway, under the auspices of the Motor Cups Holding Co.

October 6-7, Chicago, Ill.—Chicago Automobile Club-Chicago Athletic Association inter-club run for Myers trophy.

October 8, Philadelphia, Pa.—Quaker City Motor Club's third annual 200 miles road race in Fairmount Park.

October 14-15, Boston, Mass.—Boston "American" commercial vehicle contest.

October 14-18, Washington, D. C.—Second annual Washington "Post" tour to Richmond, Va., and return.

October 15, Mineola, L. I.—Motor Cups Holding Co., 278 miles international road race on Motor Parkway, for the Grand Prize of the Automobile Club of America.

October 27-29, Dallas, Tex.—Dallas Automobile Club's race meet.

November 3-5, Atlanta, Ga.—Atlanta Automobile Association's fall meet on speedway.

November 10-13, San Antonio, Texas—San Antonio Automobile Club's races at International Fair grounds

November 24, Savannah, Ga.—Savannah Automobile Club's road race.

November 24, Redlands, Cal.—Mile High Hill Climb Association's contest.

November 24, Santa Monica, Cal.—Southern California Automobile Dealers' Association's annual road race; 200 miles.

December 3-18, Paris, France—French Automobile Manufacturers' Salon in Grand Palais.

January 7-14, New York City—Association of Licensed Automobile Manufacturers eleventh annual show in Madison Square Garden. Pleasure cars and accessories.

January 16-21, New York City—Association of Licensed Automobile Manufacturers eleventh annual show in Madison Square Garden. Second week devoted to commercial vehicles.

January 28-February 4, Chicago, Ill.—National Association of Automobile Manufacturers' tenth annual national show in Coliseum. Pleasure cars and accessories only.

February 6-11, Chicago, Ill.—National Association of Automobile Manufacturers' tenth national show in Coliseum. Second week devoted to pleasure and commercial cars, motorcycles and accessories.

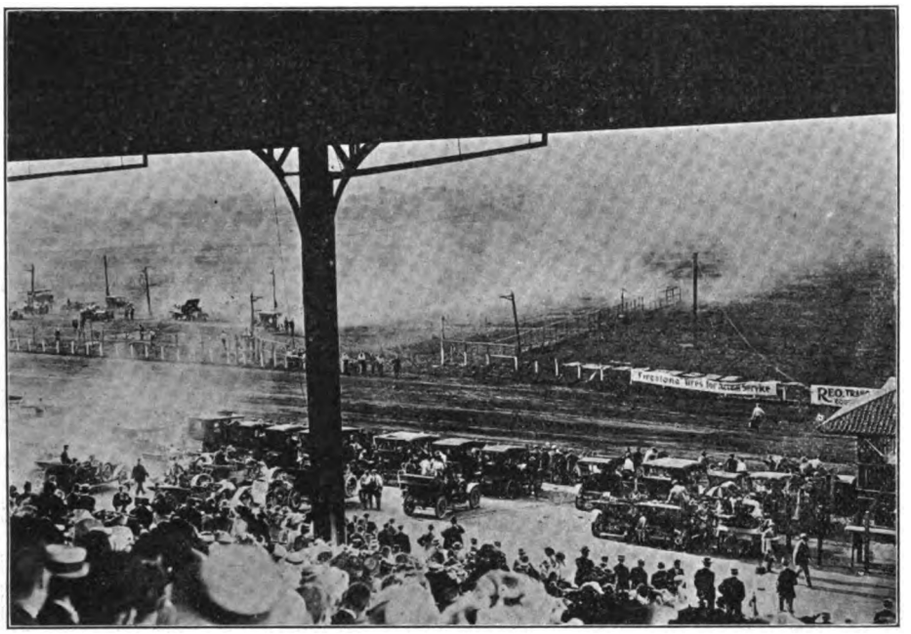
March 4-11, Boston, Mass.—Boston Automobile Dealers' Association's annual show in Mechanics building.

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## DOES MILE IN 49 4-5 AT BRIGHTON

### Oldfield Makes Good but Other Events Lag —Too Few Contestants—Robertson Wins Two One-Hour Races.

One-sided competition—George Robertson won nearly everything—and two or three discordant notes in the keyboard at the motoring carnival, Labor day, held on the Brighton Beach (N. Y.) track, took off some of the edge of the public's enjoyment. Barney Oldfield provided the appetizer by three times assaulting Father Time and twice leaving marks on that generally abused veteran with the grass cutter, but of what use was the sauce without much of a repast to dash it over?

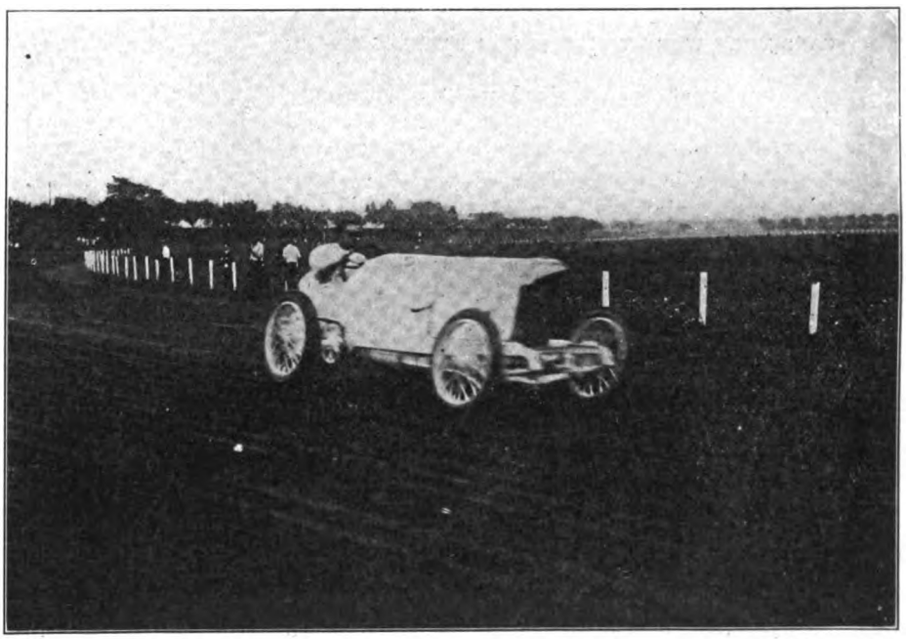


GENERAL VIEW FROM REAR SEAT IN GRANDSTAND

The affair, ostensibly promoted by Danyell J. Smith, which is the long for Dan, appears to have been more of a pecuniary than an artistic success, although a conservative estimator put the number of spectators at not more than 9,000. Apparently half the spectators had never seen such a racemeet, and regarded the "double bill" put over from Saturday, when it rained, much as they would a two-headed heifer at an old-time dime museum. They swarmed over the track, as it was too "gol durned hot" for the police to lift their eyebrows. A lot of men and boys got in free by arranging a blow-out in the fence beyond the backstretch, but the puncture was finally plugged. Oldfield in his white enameled, freshly manicured Blitzen Benz, made three trials against the world's record of 50⅘ seconds and the Brighton Beach mark of 52⅖. Both were replaced by 50⅖. On his second trial Oldfield did 50⅘, equalling the old mark. Finally to pacify patrons Oldfield had a mile go alone against his own new record and did 49⅘—a new low notch by three-fifths of a second.

It was really worth while to see "Me and My Car" occupy the center of the stage and both sides at the same time. Unfortunately the new marks stand no chance of being accepted by the American Automobile Association, because they were not automatically and electrically timed.

With the capital condition of the track and the fine weather, the crowd was spoiling to have goose pimples raised by a go between Oldfield and Robertson, following the fine gabble concocted by the advance agent. It did look for a while after the first of the two one-hour events had started, that Oldfield might have a chance to fulfill one or two out of several billion promises, but he broke one of the valves on his Knox at the end of 38 miles. The crowd then called on the luminary who declares that he is not a "ham an' driver," not being attracted by anything short of $1,000, to shift to one of his other cars, but outside of his Benz he had only his palace abode on rails, lettered as if it contained an equine paradox.



IMPRESSION OF OLDFIELD GOING "ALL OUT"

Robertson, Kerscher and the others participated in the first two mile trials, but disturbed no marks. Robertson captured most of the competitive honors, taking the two one-hour races and the two ten-mile contests, one of which proved a walkover. In the first hour event Robertson, after having tire trouble, overtook Beardsley in the forty-second mile, the latter being forced to leave the track. Robertson then held the lead to the finish, covering 55⅞ miles in an hour, finishing five laps ahead of Kerscher.

In the second one-hour contest, Oldfield did not start. Robertson had lapped the field in the fifteenth mile. Along with Howard, Kerscher and Ormsby he had trouble that forced all into the paddock, but his lead was never seriously threatened. He finished seven miles ahead of his nearest competitor. The remaining events were devoid of interest because of unequal matching. The summaries:

One mile record trials against Brighton Beach track mark of 52⅖ seconds—Barney Oldfield, 200 horsepower Benz, 50⅖ seconds; Ben Kerscher, 100 horsepower Daracq, 53⅖ seconds; George Robertson, 90 horsepower Simplex, 53⅗ seconds; Ray Howard, Isotta, 1 minute; O. F. Rost, Black Crow, 1:15⅖.

One hour race, 600 cubic inches dis-

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placement or less—Won by George Robertson, 50 horsepower Simplex, 55⅞ miles; second, Kerscher, 60 horsepower Fiat, 51 miles; third, Howard, Isotta, 48 miles; fourth, Ralph Beardsley, 50 horsepower Simplex, 44 miles; fifth, O. F. Rost, Black Crow, 44 miles.

Ten miles, 300 cubic inches displacement or less—Won by E. H. Sherwood, Mercer; second, M. P. Batts, S. P. O. Time, 10.46⅘.

Ten miles, 600 cubic inches displacement or less—Won by George Robertson, 50 horsepower Simplex; second, Kerscher, Fiat, time, 10.12⅕.

One mile trials against Brighton Beach track record of 52⅗ seconds—Oldfield, Benz, 50⅘ seconds and 49⅕ seconds; Robertson, Simplex, 52⅘; Kerscher, Darracq, 52⅘; Ray Howard, Isotta, 59⅗.

## MILLER WINS FREE-FOR-ALL AT YORK

### But there Was Glory Enough for Four Others in Other Events—Earl Goes Through the Fence.

Five thousand people who attended the York (Pa.) Automobile Association's race meet at the county fair grounds on Monday, 5th inst., witnessed some exciting brushes, despite the fact that the drivers all were local men. The card consisted of five numbers, the top liner being a five miles free-for-all, which was won by Archie Miller, Chalmers, in 7:20. Miller was kept hustling all the way by Richley, Buick, kept moving all the way by Richley, Buick, Won by A. Geesey, Maxwell; second, Charles Snyder, Brush. Time, 9:20.



CARS THAT WERE TAXED $5 FOR PARKING SPACE



THE "FAVORED FEW" WERE NUMEROUS IN THE CLUBHOUSE

Ten miles, 600 cubic inches displacement or less—Walkover for Robertson, Simplex. Time, 10.08⅕.

Five miles, 300 cubic inches displacement or less—Won by M. P. Batts, S. P. O.; second, Juhasz, S. P. O. Time, 5.16⅗.

One hour race, 600 cubic inches displacement or less—Won by Robertson, 50 horsepower Simplex, 55 miles; second, Leonard Ormsby, 50 horsepower Allen-Kingston, 48 miles; third. E. H. Howard, Isotta, 29 miles.

### Buffaloans Out for the Enos Trophy.

Competing for the Laurens Enos trophy, 15 cars started from Buffalo, N. Y., on Wednesday, 7th inst., in the Automobile Club of Buffalo's 800 miles reliability contest, which will extend over a period of four days. The Bison City will be the starting and finishing points of each day's run, which will be through different territory, and will average about 200 miles per day. The daily runs are as follows: First day, Rochester and return; second day, Salamanca and return; third day, Geneseo and return; fourth day, Hornell and return. Prizes also will be given to class winners.

keep in front. H. Miller was second. The meet was marked by an accident which was without serious result. In a 10 miles event, Earl, in the Thomas, lost a tire on the thirteenth lap and went through the fence. He escaped with slight bruises. Richley also fared well, capturing the $1,000-$1,500 class after a warm tussle with Archie Miller, who defeated him in the free-for-all. In addition he was placed twice. The summary:

Five miles free-for-all—Won by Archie Miller, Chalmers; second, H. Miller, Crawford; third, J. W. Richley, Buick. Time, 7:20.

Ten miles, cars costing $1,000-$1,500—Won by J. W. Richley, Buick; second, Archie Miller, Chalmers; third, John Burgard, Crawford. Time, 14:27.

One and one-half miles novelty—Won by Roy O'Connor, Pullman; second, Archie Miller, Brush; third, J. P. Oden, Thomas. Time, 4:47.

Ten miles, cars costing $700-$1,000—Won by Charles Lambright, Buick; second, J. W. Richley, Buick; third, Walter Grove, Hupmobile. Time, 15:24.

Five miles, cars costing $650 and under—

### Catskill Affair is "Off "For Keeps."

Catskill mountain hotel keepers will no doubt shed bitter tears over the announcement by the Motor Contest Association that he has indefinitely postponed the proposed reliability run and hill climb to the haunts of Rip Van Winkle, which was scheduled to start Saturday, 10th inst., and last three days. Lack of entries was the cause of the abandonment. The contest was postponed once before for the same reason.

### Horses the Attraction at Hawthorne.

Although automobiles were scheduled to race at the Hawthorne track, Chicago, on Labor Day, at the Chicago Business Agents Association sports carnival, the crowd of 35,000 people became so wrapped up in the horse events that the motor races were called off. As the proposed meet had not been sanctioned, the entries were confined to local drivers and but few at that. The track was very muddy.

### No Speed Carnival for Lowell.

What is probably the final chapter in the automobile racing history of Lowell, Mass., was written last week when President J. O. Heinze of the Lowell Automobile Club announced definitely that the proposed races scheduled for the 17th inst. were off for this year. With the national stock car races practically awarded to Elgin for 1911 it is probable that Lowell's star in the racing firmament has set forever.

### London's Big Fleet of Motor Busses.

No less than 1,078 motor omnibuses are running in London at the present time, as shown by last month's license figures. Of these, 558 are chain driven, 448 have the so-called "pinion and rack" drive, while but 72 are equipped with live rear axles.

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## ELGIN RACERS AT INDIANAPOLIS

**Participate in Speedway Meet—Aitken Resumes Racing with a Victory—Wilcox Proves a Surprise.**

Those Indianapolitans who missed the Elgin road carnival saw a very good pocket edition of the western classic in the third and final Grand Circuit meeting on the Indianapolis (Ind.) Motor Speedway on Saturday and Monday, 3d and 5th inst. respectively. Eleven of the Elgin speed merchants and some novices who proved genuine surprises made the windup of the season on the Hoosier oval a memorable one and furnished some of the most exciting speed duels ever witnessed on that track. There were no records broken and no accidents to thrill the large crowds who were present, but as compensation there were speed battles sufficiently close and hair raising to satisfy the most ardent fan.

Driving one of the hardest and most consistent races of his career, John Aitken, the National star, who relinquished the wheel with the death of his mate, Kincaid, last July, signalized his return to the racing arena by winning the stellar event of the meet, the 200 miles free-for-all on Monday. He completed the double century in 2:47:54, after being subjected to a long and fierce grilling by Harroun, Dawson and other veterans who gradually wore themselves out in their strenuous efforts to win. Livingston added another flower to his Elgin bouquet and also to the National record by running a close second to Aitken, while Barndollar, in a McFarlan, who faced the starter for the first time, took third. Aitken in addition to capturing the $1,000 first prize also bagged $300 of Bosch magneto money through having one of those instruments on his car.

One of the greatest surprises of the meet was the performance of Howard Wilcox, who in his maiden appearance in a National captured the coveted Remy Grand Trophy and Brassard in a brilliant exhibition of driving against a field of top notchers. By this victory the National company will hold the $2,500 trophy until the meeting next spring, while Wilcox will receive $50 per week as pocket money until the Brassard next is raced for. A National again was runner-up, Charlie Merz being at the wheel; Jap Clemens in a Speedwell was third.

Aitken was not the only one to receive cash in four figures, for Eddie Hearne and the Benz along with several others chased a winged bag containing $1,000 for 100 miles on Saturday, and, proving fleeter than the others, the Chicago combination collected the money. Hearne drove steadily and consistently but at that he had no walkover, and was kept on the jump all the way. Most of Hearne's worries were caused by Harry Knight, a raw novice in a Westcott, who had never before driven on anything but a half mile dirt track. Although Knight's car was only 50 horsepower against Hearne's 120, the former made the wise ones rub their eyes by his whirlwind work. He hammered away fiercely and persistently from flag to flag, and came within four minutes of carrying away the big plum. As it was he made a non-stop run and beat out Livingston, National, and Harroun, Marmon.

Ralph DePalma and the big 200 horsepower Fiat, the most powerful car at the meet, came in for considerable attention, but did nothing much in the way of startling work. DePalma took one shot at the track mile record of 0:35.68 with the big flier, but was unable to do better than 38.64. In fact with a "90" he did nearly as well, 40.21. His only victory of the meet was scored in a 10 miles free-for-all on Monday, when driving the 200 Fiat he trimmed Hearne in the 120 Benz.

In the distribution of the stock chassis and special events, honors were parceled out quite evenly. Hearne captured the 10 miles for the Speedway silver helmet and a 50 miles free-for-all. Aitken and Harroun each took two of the stock chassis, and Wilcox managed to chalk down another victory. Scoring a veritable clean sweep in their respective fields, Michelin tires and Bosch magnetos had a close numerical fight for honors, the former winning by a tire width. Michelin were the footwear on 16 of the 19 winners, including the 100 miles Remy Trophy and the 200 miles free-for-all, while Bosch instruments did the sparking on 15 winners.

### First Day—Saturday, 3d.

Lured by the fair weather a large crowd was on hand and streams of people still were pouring into the grounds when the first race, five miles for cars under 160 cubic inches, was called. There were only three starters, the trio of red, white and blue Herreshoffs which always come out for this class and invariably capture it. They put a pretty race, Emmons beating out Smith handily.

Although there was a high premium offered for shaving even fractional seconds off the mile record, DePalma was unable to cash in. The Warner electrical apparatus caught the big 200 Fiat in 38.64. A second attempt with a 90 Fiat netted 40.21, leaving the record safe.

Eleven cars toed the tape for the 100 miles free-for-all, and the personnel gave promise of plenty of ginger which later was uncorked. Hearne in the Benz immediately took the lead, which action caused the knowing ones to exchange significant looks. Aitken and Livingston, the National pair, tacked on and Dawson in the Marmon was at their heels. The others were strung out behind. A fast pace was set from the start, and the "deaths" soon commenced. In the third lap Aitken's carburetter went on strike and he retired. Harroun, who was pounding along at his usual lightning gait, pulled up at the pits in the eighth round, and with Dawson already there the Marmon hopes fell lower. Hearne still was leading the procession, and staving off the attacks of the others. Livingston stopped for tires in the fourteenth lap, leaving young Knight in the Staver as the most persistent and dangerous of Hearne's rivals.

When Livingston returned he resumed his old place at second and Knight was in third position. The hot pace set by Hearne was killing off most of the stragglers and at 50 miles, the half way station, he had lapped the field. Incidentally Knight had displaced Livingston at second, only to lose it in the next lap. At 67 miles Harroun, who had steadily been crawling up, moved into second place with Knight and Livingston close behind. In the 67th mile Hearne made his first stop for oil, and at the same time Knight moved back to second place. This order remained unchanged to the finish, Livingston beating out Harroun for third, despite the fact that he ran the last three laps slowly on account of a bad tire. Hearne's time was 1:19:58.09.

In the line-up no one looked for anything sensational from Wilcox (National) in the 100 miles for the Remy Trophy. However, he scored a ten strike by making a non-stop run, completing the century in 1:23:03. Merz in another National was second, and Clemens (Speedwell) third. Dawson in the Marmon, who looked good in the early stages, was eliminated at 67 miles with engine trouble. While he lasted he gave the leaders no peace of mind. In the five miles stock chassis classes, first money was taken by Harroun, Aitken, Edmunds in the Cole, and Wilcox. The summary:

Five miles, stock chassis 160 cubic inches and under—Won by Emmons, Herreshoff; second, Smith, Herreshoff; third, McCormick, Herreshoff. Time, 6:40.04.

Five miles, stock chassis, 161-230 cubic inches—Won by Edmunds, Cole; second, Greiner, Staver-Chicago; third, Endicott, Cole. Time, 5:55.

Five miles, stock chassis 231-300 cubic inches—Won by Harroun, Marmon; second, Gelnaw, Falcar; third, Pearce, Falcar. Time, 4:35.06.

Five miles, stock chassis 301-450 cubic inches—Won by Aitken, National; second, Dawson, Marmon; third, Greiner, National. Time, 4:05.

Five miles, stock chassis 451-600 cubic inches—Won by Wilcox, National; second, Merz, National; third, Basle, Matheson. Time, 4:06.07.

One hundred miles, Remy Grand Bras-

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sard and Trophy Cup, cars not exceeding 450 cubic inches—Won by Wilcox, National; second, Merz, National; third, Clemens, Speedwell; fourth, Ireland, Midland. Time, 1:23.03.

Five miles handicap, free-for-all—Won by Edmunds, Cole; second, Basle, Matheson; third, Clemens, McFarlan; fourth, Knight, Westcott. Time, 3:37.05.

One hundred miles, free-for-all—Won by Hearne, Benz; second, Knight, Westcott; third, Livingston, National; fourth, Harroun, Marmon. Time, 1:19:58.01.

Ten miles, free-for-all, Speedway Helmet—Won by Hearne, Benz; second, Livingston, National; third, DePalma, Fiat; fourth, Aitken, National. Time, 7:03.21.

Mile time trials against track record by DePalma, 200 Fiat—First trial, 0:38.64. Second trial, 0:40.21. Record, 0:35.68.

### Second Day's Racing.

One of the advantages of a brick surface was brought out by a heavy downpour of rain on Monday noon. Although the track was drenched by the storm, it rapidly shed the moisture, and in half an hour after the rain was over the first race was called. The sun broke through the clouds at intervals, and over 18,000 persons who took a chance on seeing some good races were well rewarded. DePalma and Hearne came together in the 10 miles free-for-all, and their big cars so far outclassed the others that the latter never had a look-in. They were lost at the start, but Hearne and DePalma put up an exciting battle, hanging close together until the last lap, when Hearne unwound fast in an effort to jump DePalma, but the latter had the answer waiting and crossed the tape a few yards ahead. Harroun, Marmon, took third money.

The red letter number of the day was the 200 miles free-for-all, with $1,000 for the winner. Twelve competitors started and immediately a bitter struggle commenced. In fact, the result was indicated in the first lap, but none had sufficient foresight to know it. Aitken and Livingston in Nationals were leading the field, with Dawson, Marmon, and Clemens, Speedwell, next in order. No changes among this quartet occurred until the tenth mile, when Clemens and Dawson swapped places. Clemens continued his climb, taking second in the 11th mile, and Ray Harroun was at his heels, having come up strong. He continued his onward march so determinedly that Clemens, and then Aitken, soon succumbed, and in the 20th mile Harroun was leading. Things happened swiftly in the front division for a while and there was a constant seesaw of positions. After being pushed off the top rung a few times Harroun finally got a firm grip on the front berth and cut out a dizzy pace that kept the others exceedingly busy trying to hang on. This mad whirl kept up until after the 70th mile, when Harroun lapped Livingston and Aitken moved up to second.

Another era of kaleidoscopic shifts came soon when Harroun pulled up for the first time with bad tires and Aitken set the pace. And such a clip as he tore off! So fast did he gain on the others that he had lapped all but Harroun at 90 miles, the latter having made a quick change and got back into the fray, where he hung tenaciously to the flying Aitken. At 100 miles, the half-way mark, all twelve cars were still running, but the crowd saw only Aitken and Harroun, who were having a terrific battle. They were closely matched and were putting up one of the grandest fights ever seen on the track. Gradually they pulled away from the others, who were unable to hang on and soon were lapped, not once, but several times. Like a dog in pursuit of a cat, Harroun kept at Aitken's heels, spurring him on, but not quite able to catch him. At 150 miles they still were pounding out the same heartbreaking pace which had killed off three of the others—Basle, Matheson; Ireland, Midland, and Gelnaw, Falcar. Livingston, although several miles behind, had a good grip on third and Dawson, in the other Marmon, was teasing him.

About this time another vial of thrills was uncorked. Livingston stopped for tires and Dawson closed the gap immediately. Then Harroun unwound a sensational spurt that carried him past Aitken and the crowd jumped to its feet yelling madly. Aitken soon responded with another spurt that put him back in the lead, and the crowd went wild. Repulsed, Harroun came back slowly and crept up inch by inch, and in a few laps again was in front. Fate then frowned on the Marmon team and Dawson lost a tire, which cost him his place. The crowd soon got back to the two leaders, who now were running abreast, and seesawing in the lead.

It was nearing the finish and promised to be one of a rare sort when misfortune appeared in life size and dealt the cards again, and gave Harroun a bad hand. Under the terrific strain a universal coupling broke and the Marmon "died" instantly on the backstretch and Aitken's dangerous foe was removed. From then on Aitken had an easy time, for although the others were still kicking in lively fashion they were not near enough to be dangerous and he slid home a winner and a well deserved one. His time for the double century was 2:47.54, an average of over 71 miles an hour. Livingston had held onto second place after Harroun went out, and Barndollar, with a McFarlan, another dark horse, romped home third.

Some exciting brushes occurred in the five miles events for stock cars. Emmons, Herreshoff, Frayer, Firestone, Aitken, National, Harroun, Marmon, and Wilcox, National, were collectors of first money. The summary:

Five miles, stock chassis 160 cubic inches and under—Won by Emmons, Herreshoff; second, McCormick, Herreshoff; third, Smith, Herreshoff. Time,

Ten miles, free-for-all—Won by DePalma, Fiat; second, Hearne, Benz; third Harroun, Marmon; fourth, Livingston, National. Time, 6:48.04.

Five miles, stock chassis 161-230 cubic inches—Won by Frayer, Firestone-Columbus; second, Endicott, Cole; third, Greiner, Staver-Chicago. Time, 4:47.08.

Five miles, stock chassis 231-300 cubic inches—Won by Harroun, Marmon; second, Pearce, Falcar; third, Barndollar, McFarlan. Time, 4:38.02.

Five miles, stock chassis 301-450 cubic inches—Won by Aitken, National; second, Dawson, Marmon; third, Greiner, National. Time, 4:10.02.

Fifty miles, free-for-all—Won by Hearne, Benz; second, Harroun, Marmon; third, Livingston, National. Time, 38:02.08.

Five miles, stock chassis 451-600 cubic inches—Won by Wilcox, National; second, Basle, Matheson; third, Merz, National. Time, 4:09.09.

Five miles handicap, free-for-all—Won by Barndollar, McFarlan; second, Frayer, Firestone-Columbus; third, Clemens, McFarlan; fourth, Hughes, Parry; fifth, Edmunds, Cole. Time, 5:08.03.

Two hundred miles, free-for-all, cars not exceeding 600 cubic inches—Won by Aitken, National; second, Livingston, National; third, Barndollar, McFarlan. Time, 2:47.54.

### Atlanta Puts Up Big Cash Prizes.

In an endeavor to regain for the Atlanta (Ga.) Speedway the prestige and prominence which it once held as one of the foremost motordromes in the country, the Atlanta Automobile Association has arranged an extensive card for the fall meet on November 3d-5th, when it is hoped to draw the star drivers to the southern course and boost its standing in the record table. There are twenty races carded for the three days, consisting chiefly of stock chassis classes with topliner numbers for each day. The latter consist of the 100 miles Coca Cola Trophy race, with $500 in gold, the 200 miles City of Atlanta Trophy race, which will net the winner $1,000 in gold, and the 250 miles Atlanta Speedway Grand Prize, worth $3,000 in gold to the winner. In the first two races the trophies must be won three times consecutively to become the permanent property of the winner, while the latter race is purely a cash event. The first two are holdovers from last year, while the Grand Prize is a new creation. The total cash prize value is $11,000. Three amateur events also are carded with medals for the winners.

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## MEXICO NOT A TOURING GROUND

**Pilot of the Flanders "Under Three Flags" Car Tells Why—Small Prospects for Good Highways.**

That the present generation of motorists will never enjoy the opportunity of touring the republic of Mexico under favorable road conditions is the opinion of William J. Lane, who has returned from Mexico City to resume his regular work in the sales department of the E-M-F Co., after piloting the Flanders "20" "Under Three Flags" car from Quebec to the conclusion of the trip.

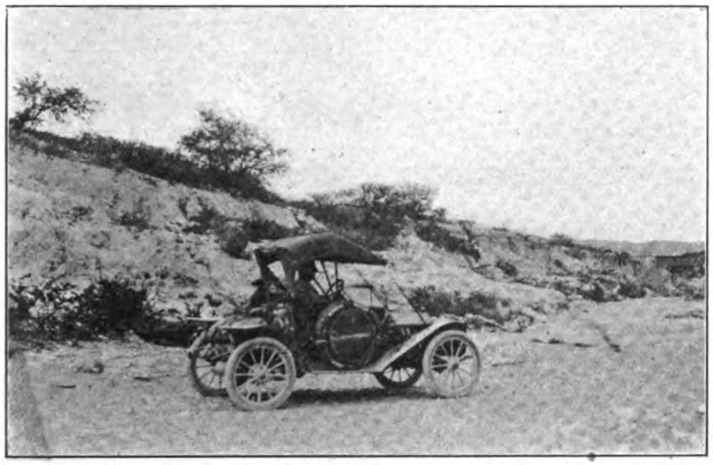
Mexico, Lane believes, is forced to combat such unusual difficulties in the way of climate and soil that it is doubtful if there is ever a road system there worth the name. Lack of binding vegetation, prolonged drought and torrential rains combine with the unusually rough nature of the topography to make road building virtually impossible, so far as lasting effects are concerned.

The "Under Three Flags" car entered Mexico at Laredo and found the country for the first 600 miles a mountain desert. Water is so infrequently met with as to limit the population very radically. Often houses were 30 miles apart, even along the line of the National railroad. Mountains were always in sight and caused long detours. In general the road, in the form of a burro trail, followed the valleys between the mountains. The surface was usually gravel and excellent natural highways would have been in evidence undoubtedly but for the fall floods which annually make of each valley a watercourse which, in two rainy days, often scours from the surface of the land every vestige of a highway, seaming it with arroyos. The only feasible system of road-making would be, in Lane's opinion, construction of highways along the mountain ridges, and this would be accompanied with tremendous expense.

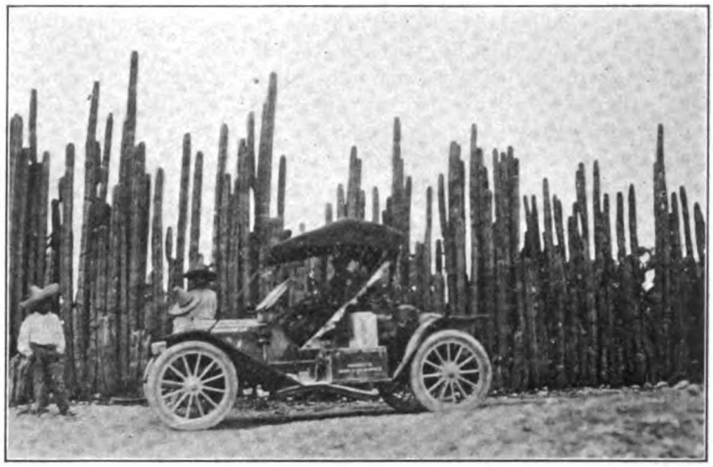
The whole northern half of the route, broadly speaking, was crossed during its dry season. South of San Louis Potosi, however, the rainy season was encountered. Here was given an excellent demonstration of the difficulties attendant on the time of year when the country is drenched daily by a heavy fall of rain. During the afternoon the rains would fill the creeks to such an extent that the travel often had to be abandoned and camp made on the bank of a stream, the delay being in operation until morning, when the water would usually have fallen to such an extent as to permit fording. To build a road through such country would require the construction of so many masonry bridges as to fairly swamp any nation in debt, Lane says.

Another obstacle is the lack of appreciation of good highways on the part of the Mexican peasantry. Accustomed for generations to the exclusive use of the pack animal for transportation purposes, the Mexican considers any road where the hardy burro can pick his way, as good enough. Stretches were often encountered where a good road might have been maintained but for the disregard of the possibilities by the inhabitants. Their indifference was chiefly noted in the nonchalant manner in which they dig up a highway to provide for the needs of an irrigation ditch. These ditches radiate from tanks, built on the lowest spots of the valleys. In rainy seasons these tanks are filled and often carry a supply sufficient to last a herd of cattle through the dry season.

No attempt is made to bridge the ditches.



WHAT PASSES AS A "FAIRLY GOOD" ROAD



GIANT CACTI OF WHICH MILES EXIST



ROUGH GOING THAT TRIES MEN'S SOULS



TEARING DOWN A FENCE TO MAKE PROGRESS

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In the wet season they are practically fatal to anything but the most heroic efforts, while in the dry season their perpendicular banks almost always require liberal use of a pick and shovel before progress is possible with a motor car.

Progressive residents of Mexico, of course, lament the conditions which prevent them from using their motor cars outside the limits of the various cities. American Minister Wilson, in an interesting conversation with the crew of the "Under Three Flags" car assured them that he was doing all in his power to secure the construction of one model highway between Mexico City and the American border. In all probability the Eagle Pass route would prove most feasible for such an undertaking. But the prospects for such a road are at the best very remote.

**Regal Plugger as a Good Roads Apostle.**

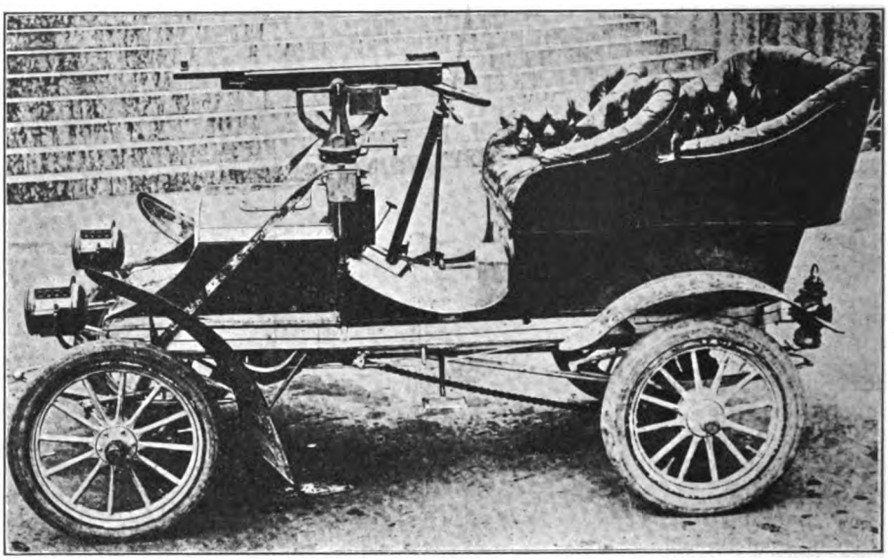
The Regal "Plugger" which last year made the round trip across the continent and after being used as a demonstrating car in Detroit for several months was driven to New York and then piloted on an adventurous swing around a circle that reached to Oklahoma, is to perform another swing of the sort, this time in the southeast. It will be styled the "All Southern Tour" and under the auspices of H. W. Anderson and A. L. Riggs, who constitute the Southern Regal Auto Co. of Atlanta, Ga., the travelworn but hardy old car will leave Norfolk, Va., and trace a zigzagging line of 5,000 miles through Virginia, North Carolina, South Carolina, Georgia, Florida, Alabama, Tennessee, Mississippi, Arkansas and Louisiana back to Norfolk; the routes traversed subsequently will be issued in book form. The south is agog with good roads sentiment, and it is designed that the Plugger shall travel as a good roads apostle and further the sentiment as much as possible. Messrs. Anderson and Riggs already have enlisted the support of a number of newpapers along the line which have promised to assist in making the "apostle's" journey a conspicuous one.

**Turns a Quick Deal by Automobile.**

Good stories, both true and fictitious, now and then are told of the automobile in its capacity as rapid carrier, but one of the neatest is told of P. T. Powers, president of the Eastern Baseball League, who is an enthusiastic motorist. Mr. Powers recently saw a real estate advertisement in a New York newspaper of a piece of land for sale out in New Jersey. He immediately called for his car and was soon headed for the place. Inside of an hour he had bought the land, and before doing so had sold the crop of rye on it to the former owner of the land, and was back in New York inside of three hours. In speaking of the matter Mr. Powers said to a friend: "If I had to do that by the usual means of travel it would have been a day's work."

**Automobile Artillery Put to Practical Use.**

For the first time, so far as is known, automobile artillery has been engaged in actual service, the prolonged street car strike at Columbus, Ohio, affording the opportunity. The artillery consists of a Colt rapid fire gun mounted on a Franklin runabout and manned by members of Battery C, Ohio National Guard. It is stationed at the grounds of the state capitol, and during the strike it has been making from five to fifteen trips a day, answering riot calls and doing service at the car barns at the extreme ends of the city. The gun which



"PEACEMAKER" IN USE IN STREET CAR STRIKE

is mounted, as shown in the accompaning illustration, can be turned through a complete circle, and its appearance several times has served to quiet what promised to be serious outbreaks.

**Use Motor Vans for Frozen Meat.**

While the refrigerator car on rails has been used to advantage by the big railroads and meat packers, automobile refrigerators are still a novelty in this country. In Argentina, however, "frozen meat vans," as they are called, are an important factor in the South American meat export trade. The vans, gasoline-driven, are a part of the equipment of the Argentine Frozen Meat Co.'s La Negra works, and are used to transport meat from the refrigerators to the ship's side. They are insulated with compressed cork, insuring the meat reaching the ship at practically the same temperature as when leaving the refrigerator, the speed of the machines also recommending them for the service.

**Moving Pictures from a Motor Car.**

New uses for the automobile are discovered almost daily, and one need hardly be surprised at anything that the ubiquitous motor car is asked to do. The London weekly, "The People," for instance, just has installed a forty horsepower moving picture "show," which travels all over the country giving patriotically-flavored exhibitions by the kinematograph. The whole outfit is carried on an automobile, a large white sheet is stretched at the proper distance from the automobile, and the exhibition is conducted free of charge in every village and hamlet of the British Isles.

**"Head Chauffeurs" Become Exclusive.**

The craving for distinction, the desire to lift one's self at least a notch above the common herd is evidenced by the formation in London of a "Head Chauffeurs' Club," which has been launched with a rush. The title seems to indicate that the organization is intended only for the aristocracy of the fraternity—those who have charge of several cars, with a staff of helpers under their orders. A search of the constitution, however fails to disclose any such requirement. The name is a misnomer, but because of it the club has started off with uncommon impetus as to membership.

**Demand Knowledge of London Streets.**

Complaint is being made that the Scotland Yard authorities are making the topographical part of the examination through which would-be taxicab drivers must pass so difficult that it is next to impossible for an intelligent man to run the gauntlet. In short, Scotland Yard considers a microscopical knowledge of London and its geography more important than the proper driving of a vehicle. That mistaken notion is believed to have much to do with the increasing difficulty of cab companies in finding drivers, for it is not easy to remember London's network of alleys.

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## BUCKING THE SANTA FE TRAIL

**Kansas City Motorists Meet Exciting Adventures on Endurance Run to Colorado Springs—Novel Entertainments.**

Out Kansas City way the motto about hitching your wagon to a star seems as antiquated in the line of advice as it does elsewhere where horse-drawn vehicles are now the exception rather than the rule. The wagon has been more or less superseded by the motor car, but the point of attachment remains unchanged, except that instead of its being a star it is The Star, which annually co-operates with the Kansas City Motor Club in what is styled a trophy run, which this year started from that place on August 30 on a ten days' journey covering 1,565 miles, which the publicity agent declares will include 134 towns. The route is over the old Santa Fe trail where 60 years ago the advance guard of civilization was winding its dangerous, arduous way into the fastnesses of the Rockies and beyond. That path lies across Kansas to La Junta, Col., and thence south via Trinidad to Raton, N. M. From there the turn is northerly, retracing the way to La Junta and then to Pueblo, Colorado Springs and Denver. From the Silver City the turn is directly east to Kansas City, almost in a straight line.

Thirty-three contenders started in the run and, judging by the experiences of the first five days, they found few beds of roses. The participants had such a tough time that on the fourth night out the officials went to bed as soon as possible, letting such a little thing as the score schedule "go hang," until they had enjoyed a decent sleep. To quote one of the party: "The only harder test would be to drive into a stone wall at a 60-mile gait and give the prize to the car that is in the best condition then. Which car is the best? Any car that gets to Colorado Springs will do for anybody."

By way of sidelight, it may be stated that the Stoddard-Dayton soon lost its way, traveling 30 miles in a circle. After four hours wandering it struck a town at midnight and obtained its bearings. The passengers slept in a barn, arose with the lark and caught up with the procession at Dodge City.

The narrow mountain roads traversed could not be wilder. The straight drop at their edges is frequently from 1,000 to 1,500 feet. Nice place to meet some one speeding in the opposite direction! Consequently, an attempt was made by some of the authorities to keep other than tourists off such stretches, but it usually failed to work.

Fourteen cars were penalized on the first day's run of 213 miles to Newton, Kan. All arrived by midnight except the Inter-State No. 35, which burned out a bushing. Several of the penalizations were trifling, being for engine stops. The Auburn No. 3 incurred the heaviest penalty—59 points—in the dealers' class, having trouble with its brakes, which caused a collision with the Stevens-Duryea. The Auburn No. 41 in the owners' class came in with a piston lost, getting 180 demerits thereby. Loose brakes cost the Regal 42 points, while the Inter-State No. 26 lost 41 points. Engine trouble cut the Perry's score 29 points. The Franklin No. 1 was taxed 8 points, the Auburn No. 6 3 points, and the Jackson and the Buick No. 18 2 points each. The Stoddard-Dayton, Falcar, Mitchell and Abbott-Detroit each lost 1 point. Ottawa and Empire were the largest places passed through. The Newton club gave a smoker for the tourists in the evening.

The second day's journey of 186 miles was to Dodge City via Great Bend, and as it rained smartly there was no end of trouble with gumbo as to tires and tire chains. The running schedule had to be cut three miles an hour, so many cars went into the ditches, where they had to be pulled out. There was a band out at Lyons, but the tourists were so wet they only half appreciated it. No scores were announced that night, as H. N. Strait, the referee, was among the missing. He was in the pacemaking Pennsylvania, which surrendered the flag to the Franklin No. 1, Strait taking a train to regain lost ground.

To La Junta, Col., the third day, was 220 miles, the longest run of the tour. It started amid rain, which soon ceased. Syracuse, Kan., was the noon stop. Bridges over the irrigation ditches kept the speed down. One bad spot near Garden City, Kan., was encountered, where many cars had to be pulled out. Bottles of sugar—Kansas beet sugar—were distributed en route as souvenirs. At Cimarron, Kan., a large sign was out stating the speed limit to be 50 miles an hour and a cop, wearing a huge star, threatened to arrest all those who did not keep up to it.

Holly was the first Colorado town reached—an oasis, after the desert wastes of Kansas prohibition. Naturally Holly was loaded for the travelers—with pints and quarts. The day came near proving serious for Henry Ashley, a guest of M. C. Nolan, in the Stevens-Duryea car, which went into an irrigating ditch where the wheels spun around helplessly in response to the engine. Two of the passengers, Ashley being one, got out and tried to assist. In doing so Ashley's left hand was caught on a tire nut, the flesh being torn several inches and an artery severed. Then the wheel went over one ankle. He had the nerve to hold the artery shut for 50 miles, until he could reach a doctor who sewed him up.

As no scores were made up the second day, the showing for the second and third days were combined. The third night in the owners' class the Auburns No. 41 and No. 39 dropped out of the running, leaving only the Franklin No. 38. In the dealers' division only the Great Western and Buick remained with perfect scores. Those out of the running were the Stoddard-Dayton, Jackson, Perry, Herreshoff, Interstate 35, and Auburn 24. The scores of the others were:

Haynes 25, 999; Carter Car 30, 999; Ford 36, 997; Maxwell 15, 997; Buick 18, 997; Buick 19, 996; Case 37, 996; Abbott-Detroit 4, 995; Falcar 34, 995; Reo 12, 994; Cartercar 31, 989; Franklin 1, 987; Maxwell 14, 987; Stevens-Duryea 8, 982; Auburn 6, 981; Speedwell 20, 979; Mitchell 32, 976; Regal 16, 938; Interstate 26, 929; Auburn 3, 816; Velie 11, 898.

The fourth day's run ended at Trinidad, the business center of Southern Colorado. There the officials were so tired they decided not to get up the scores until they reached Colorado Springs. The day's run was 152 miles, the first 90 of which, across the desert, every one bumped the bumps continuously. That brought the party to Trinidad, where a brief stop was made before pushing on to Raton, N. M. The afternoon's run was smooth and dustless, but steep, return being made to Trinidad that night, where there was a Dutch luncheon in a coal mine and other great "goings on." The Trinidad Motor Club is a live organization and had much to do with the route that was selected. Local business and social clubs kept open house for the tourists. The only announcement in the way of scores forthcoming at that point was that the only perfect road showing remaining belonged to the Great Western. The total travel to that point was 790 miles.

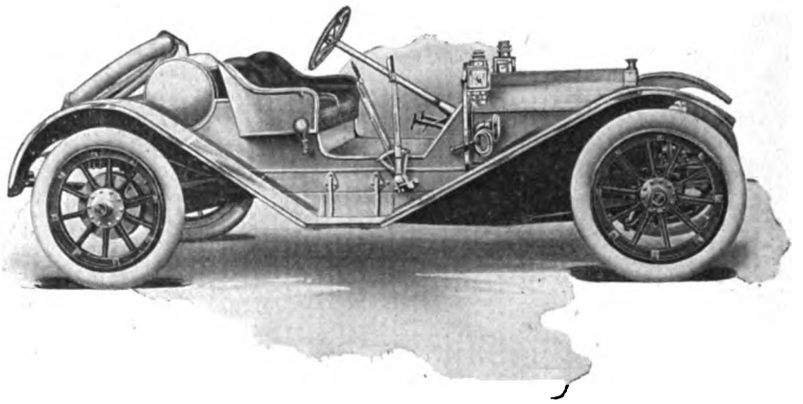
Colorado Springs, reached via La Junta and Pueblo, was the end of the fifth day's trip, the Great Western retaining its perfect score to the foot of Pike's Peak. The Springs marked the end of the contest in the owners' class, which went to Mr. and Mrs. D. E. Gudgell's Franklin No. 38, the only car remaining. The penalizations as announced to Colorado Springs, with certain exceptions as noted, follow:

Cartercar 30, 999; Buick 17, score held back for decision on questioned rule; Haynes 25, 998; Ford 36, 997; Maxwell 15 (no report for Friday), 997; Case 37, 996; Reo 12, 994; Falcar 34, 993; Cartercar 31 (no report for Friday), 988; Franklin 1, 987; Kisselcar 10, 986; Buick 18, 985; Speedwell 20, 963; Mitchell 32, 921; Buick 19, 913; Velie 11, 900; Regal 16, 864; Interstate 26, 822; Auburn 3, 808; Stevens-Duryea 8, 695; Maxwell 14, 541; Stoddard-Dayton 40, minus 1,882; Abbott-Detroit 4, (not in when official list was made up); Auburn 8, withdrawn.

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**We waited until we had actually done s**
**The result is that the motor-wise among the tr**

# The New S. G. V



¶ The supply of adjectives and superlatives has been so nearly exhausted
of things leads us to refrain from using them in describing the new S. G.

¶ Since S. G. V. cars will chiefly appeal to those who know what a
arouse instant interest.

¶ The car itself tells its own story; the specifications confirm it. The p

¶ The S. G. V. car is intended to be the realization in concrete form of a
or two—not many. These we have dissected, studied, absorbed, and
painstaking perseverence. It was not merely a manufacturing proposition

¶ BUT WE GOT IT. Every single S. G. V. car made will have it.
of S. G. V. cars this season is 300. These we plan to distribute th
Philadelphia, Chicago, San Francisco and where we already have agenc

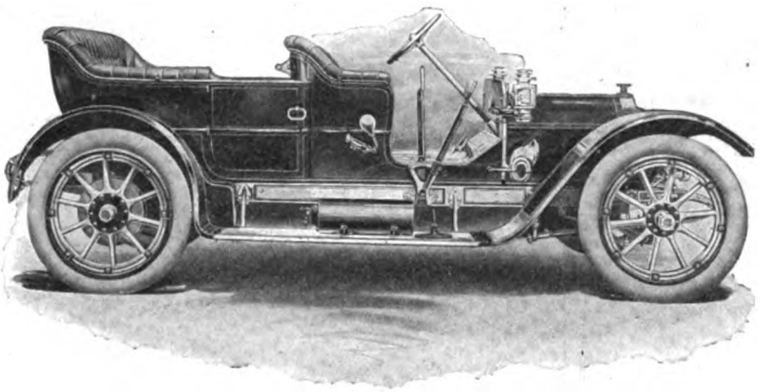
¶ While but comparatively few may possess S. G. V. cars this year, we
end, we will send to anyone genuinely interested detailed information an

**ACME MOTOR CAR COMP**

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**ething before we started to talk about it.**
**: and public are now doing the talking for us.**

# . is the Reason



motor car makers of high and low degree that some sense of the fitness
car.

)tor car ought to be, an intimation of what the S. G. V. is will usually

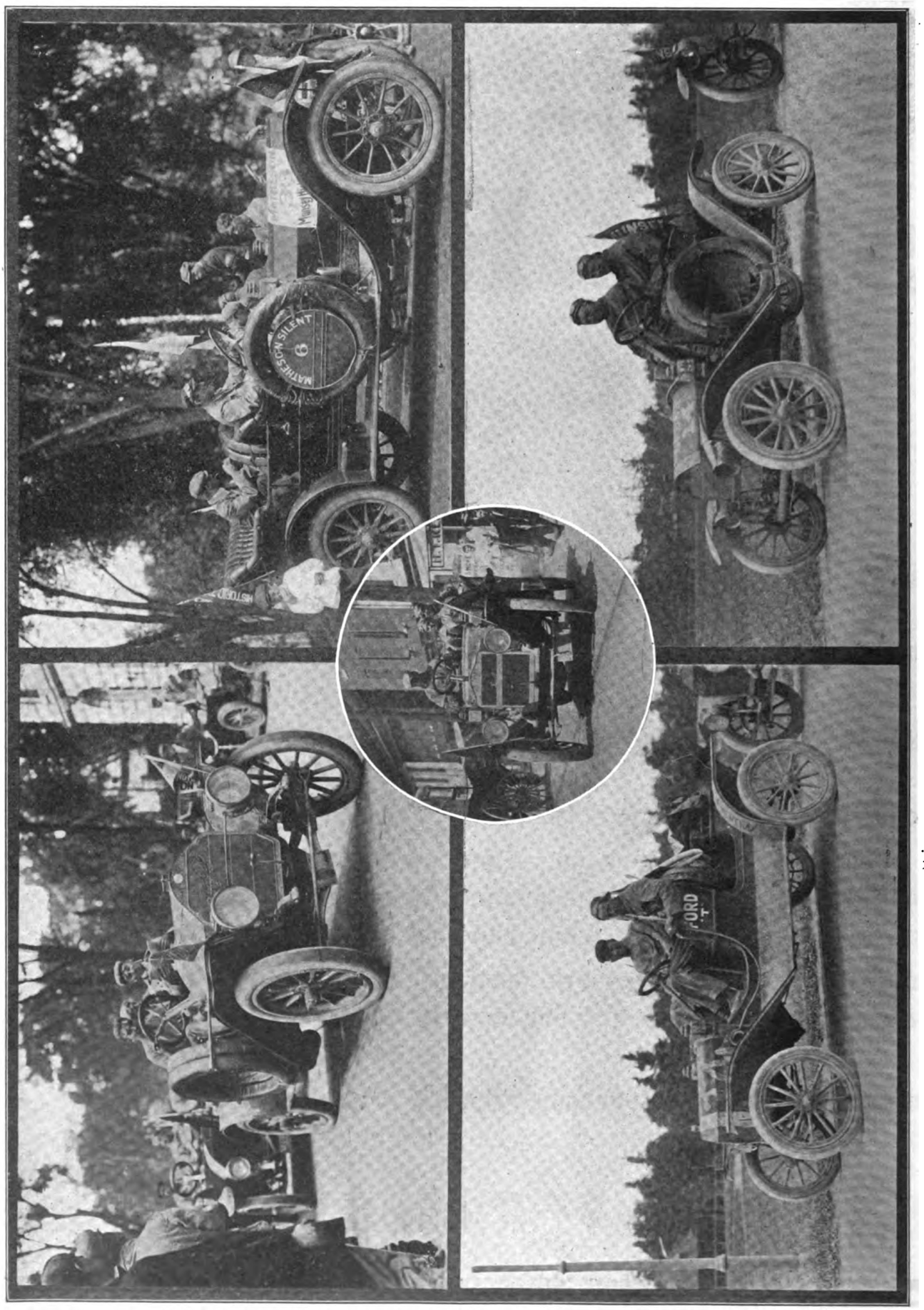
/ of manufacture makes assurance doubly sure.

)e and class of car that America has not yet produced. Europe has one
the main, faithfully duplicated. There was no haste; instead, patient,
The soul of a motor car was what we had to have, and it was elusive.
: naturally means an extremely limited production. The possible output
gh a half-dozen of the largest distributing centers, New York, Boston,
stablished.

ı as many as possible to become familiar with what they are. To this
ecifications. They are worth while.

**NY, - - - Reading, Pa.**

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FIVE CONTENDERS THAT EARNED AWARDS IN THE MUNSEY HISTORIC TOUR.

L. H. SHAAB (STODDARD-DAYTON) $2001-$3000
JAMES CHERRY (FORD) $800-$1200
D. A. HALL (MATHESON) OVER $3000
D. E. McCOY (BRUSH) UNDER $800
H. E. WALLS (MAXWELL) SWEEPSTAKES PRIZE

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## BLAZE THE WAY FOR A RAILROAD

### Automobiles Help Railway President Lay Out Route in Central Oregon—Some Exigencies of Pathfinding.

The old saying that "the railroad is the advance agent of civilization" must soon undergo revision, now that the automobile is being used to blaze the trail for railway engineers. L. W. Hill, president of the Great Northern railway, and a party of officials of that road recently covered 1,500 miles prospecting through grand country in Central Oregon, an experience that would have balked the pathfinder in many an endurance run. Less than 100 miles a day was shown by the speedometers. The



NEAR WARNER LAKE

start was made with three automobiles, but only one, a 40 horse power Studebaker, owned by the Oregon Trunk Line, and driven by George Cain, went through the entire trip. Six cars, all told, were used by the expedition at various times on the tour. Three or four times it was necessary to use block and tackle to pull the vehicles out of the mud. Often the running was through water several inches deep. Nevertheless the entire route planned in advance was covered, while additions were made to the trip.

Starting from Portland there were three automobiles, to which was soon added a fourth. A second car, owned by Porter Bros., got as far as Buck mountain, about 58 miles from Burns. There it struck a "high center" and was left for repairs. The third car, owned by Mr. Hill, broke a spring at Prineville, and was also left for repairs, with instructions to return to Portland. Returning to Shaniko, rains and bad roads were encountered, and there were more

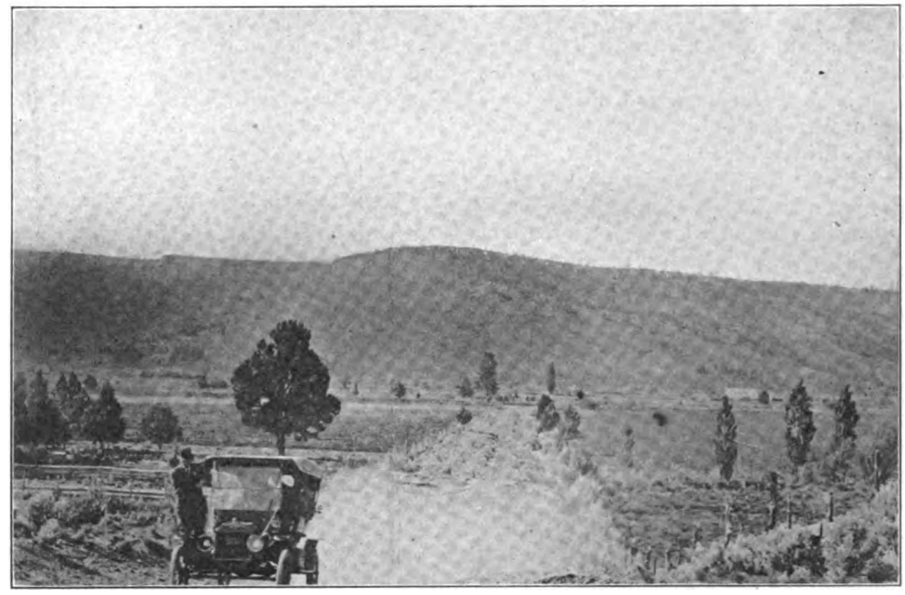


ROUGH GOING IN CENTRAL OREGON

break-downs. Finally, after reaching Portland, the third car was started down the valley to meet Mr. Hill and became wedged in a railroad track at Oregon City, causing the breaking of a steering knuckle, and was loaded on Mr. Hill's private railroad car.

William Hanley's automobile met the party at Cross Keys, between Shaniko and Madras, and continued with the travelers to Prineville. When out of Prineville 25 miles a front wheel was broken. Repair parts were sent for and the car overtook the party at Klamath Falls, making a run of 187 miles from Prineville in one day, but missed the Lakeview trip. Mr. Hanley's automobile then came through the remainder of the way to Portland.

In the Antelope Canyon, about 20 miles from Shamlin, the Oregon Trunk car mired and was pulled out with block and tackle. Another incident of this kind was at Warner Lake, 45 miles from Lakeview. High water had overflowed the approach to a bridge across a narrow neck connecting two lakes. The same car mired in the over-



VIEW NEAR KLAMATH FALLS, ORE.

flow, but again block and tackle brought it through. The route followed by the Hill party cannot be recommended to the average automobile tourist, although by making detours, later in the year, the same points can be reached without serious inconvenience or damage to a strongly built car. From Shaniko to Cross Keys, via Antelope,

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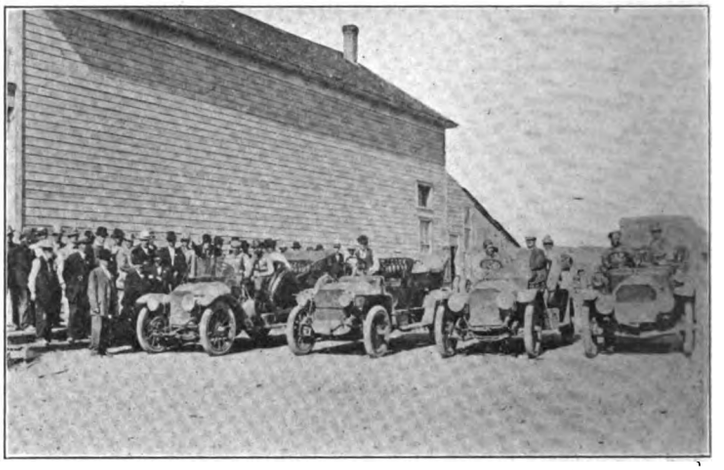
the road is somewhat rough. One good rain makes it impassable for automobiles, as much of the soil is gumbo. A few sunny days puts the road in shape, however, so that it is passable. From Cross Keys to Madras, Redmond, Bend and Prineville the roads are excellent at any season. For a few miles out of Prineville on the stage route to Burns the road is rough. The road climbs steep ridges and there are a few long grades, but the run of 150 miles with careful watch for "high centers" can be made in one day. The last 60 miles into Burns is as good as can be found in Oregon, with the exception of the macadamized roads leading in and out of Portland. There is a smooth highway from Burns for 75 miles to the "P" ranch, but between there and Warner Lake there is a stretch of 40 miles laid across bedrock. For the entire distance it is slow traveling, and racking on a car. Another and better route is afforded between Prineville and Lakeview, taking the tourist via the "P" ranch, another Hanley property, but in the spring the lowlands that must be crossed are too wet for travel, so that this route is passable only during the dry season.

The route taken by the Hill party from Lakeview to Klamath Falls was roundabout, so as to visit the Chewaucan and Summer Lake valleys. Automobile stages are running daily between the two towns over a somewhat rough road 100 miles long. To take in all the Chewaucan one must follow ranch roads of tolerable quality and open about a dozen gates. After leaving Summer Lake valley there is a long, smooth stretch of road through the Fort Rock country on which high speed can be made. After the forest reserve is reached the road is still good, but winding. From Crescent south to Klamath Falls, the road is smooth but serpentine. So sharp are the turns among the trees that high speed cannot be made with a large car. To avoid a rough road down the lake shore the party loaded the cars on a steamer at the Klamath agency and rode 40 miles down the lake to Klamath Falls. From there the route followed over the Siskiyous is extremely rocky and hilly more than two-thirds of the 65 miles. A good road, however, can be found by a detour into California, making this part of the trip 110 miles long. Rogue River valley highways are capital and there is a smooth but typical mountain road to be followed in gaining the Umpqua valley from the Rogue. A similar climb and descent is required to reaeh the Williamette valley from the Umpqua.

The 1,500 miles covered was not wholly in journeying from point to point. At Lakeview a trip of 60 miles was made in the Goose Lake valley, at Klamath Falls a side jaunt of about equal length was taken southward, while at Medford there was a tour of 91 miles in the Rogue River valley, and short runs were made from Ashland, Grant's Pass and Roseburg. On these side trips the roads for the most part were rough and severe on the cars.



ON THE PRINEVILLE-BEND ROAD



LEAVING MADRAS FOR PRINEVILLE

### How Health Resorts are Suffering.

Perhaps the most peculiar result of the greatly increased touring habit on Continental Europe has been the remarkable falling off in number of patients at the famous "Kurorte" in Germany. The number of people taking the medicinal baths at Wiesbaden, Carlsbad and other famous spas, has decreased considerably, while at the same time the number of hotels and restaurants catering to them has increased. The touring motorists who were expected to furnish a good deal of trade for the hotel keepers in these spas refused to be cajoled into paying the extravagant prices demanded when they could obtain the same or even better fare at places a few miles distant, to which they could motor in an hour or so. As a result of this increase of automobilists and decrease of "staying" patients a large number of the best hotels in Germany have gone into bankruptcy.

Speaking of this phase of the effects of automobile touring, Consul Richard Guenther of Frankfort, says: "The annual report of the Chamber of Commerce for Wiesbaden states that 33 hotels and restaurants there failed last year. Among these were some of the largest and most modern hotels, equipped in magnificent style. The sharp competition existing between these establishments, the heavily increased cost in maintaining them, and the generally unfavorable economic conditions are given as the chief causes of these failures. The guests who come for a cure by means of the well-known mineral waters have not increased in number, nor has their expenditure of money counterbalanced the increased number of hotels and restaurants and the enhanced costs in taxes, food and materials, wages, etc. The city having made heavy outlays for public improvements, and projecting additional ones, to attract foreign visitors, has ordained a general tax according to which even tourists who do not use the waters must now pay if they extend their stay beyond two days. Baden Baden has recently adopted a similar ordinance for taxing tourists. This innovation is to procure additional revenue to meet the increasing municipal needs."

### The Tourist and His Decorations.

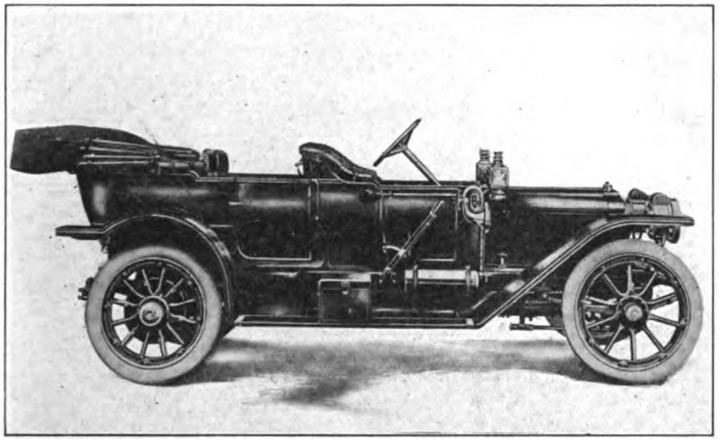
Among the many things for which the automobile is responsible is a rival of the numerous American traveler whose proudest possession is a trunk or a suit case plastered with foreign hotel labels. The automobilist, however, does not go abroad but merely follows a well worn touring route in the east on the line of which he accumulates small vari-colored pennants bearing the names of the towns through which he passes or in which he lodges overnight. The pennants are attached to the windshield rods or other parts of the forward structure of the car, which when thus decorated suggests a yacht dressed for a gala occasion. As a means of making the individual conspicuous and causing remark these pennants have the hotel labels "beaten to a frazzle."

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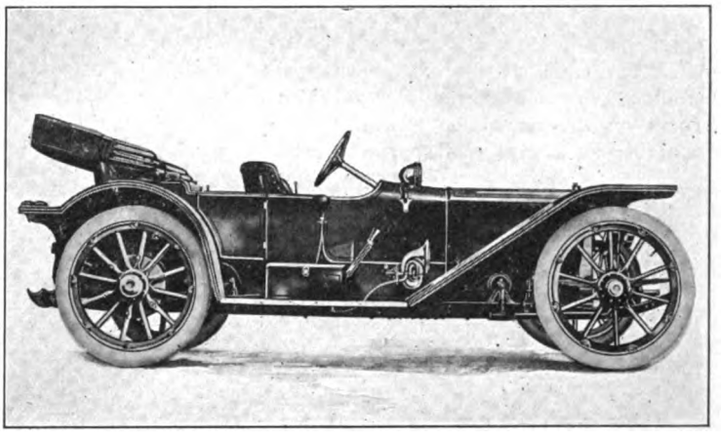
## TWO COUPE MODELS ARE ADDED

**American Line Comprises Nine Types for 1911—Seven Have Underslung Frame —Changes in Details.**

Introducing the coupe in two and four passenger models as additions to the line, the American cars for 1911 are presented in nine models by the American Motor Car Co., of Indianapolis, Ind. Seven of the models are made with the underslung frame which has been characteristic of the American, while the tourist and limousine types will have the conventional or overslung frame in relation to the spring suspension. In the main the changes that are disclosed in the new offerings in comparison with their predecessors relate to refinements and simplifications of detail.



AMERICAN TOURIST



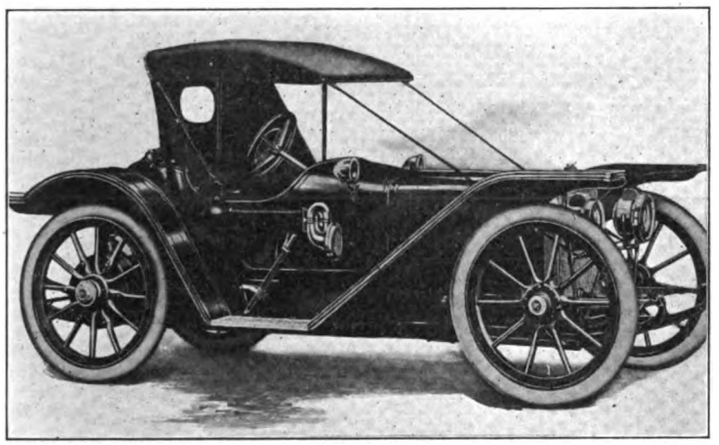
AMERICAN SEMI-TORPEDO TRAVELER

Perhaps the greatest innovation is the concealed oiling system, which will be common to all models. The oil is forced by a gear driven pump contained in the crank case. A brass tube is cast in the crank case, leading from the pump to two flexible steel tubes which convey the oil to and from the indicator on the dash. Ample precautions are taken against the possibility of the oiling system being damaged in any way. The crank case has an oil capacity of one and a half gallons. The Roadster, Roadster Special and Speedster models have an auxiliary oil supply of eight gallons. The remainder of the models have an auxiliary supply of two gallons.

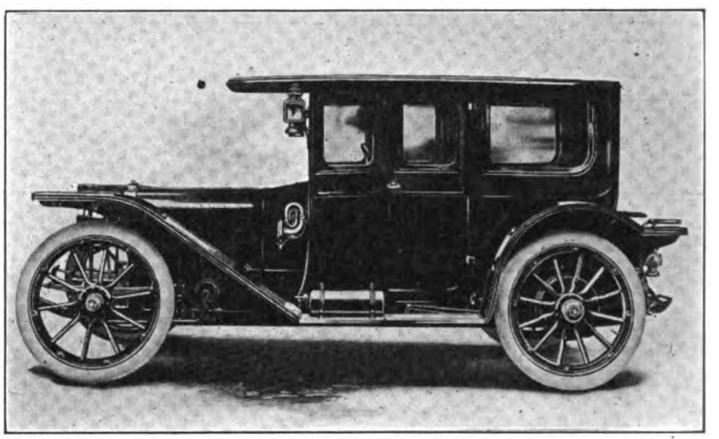
All models have engines of four cylinders cast in pairs. The cylinders are offset. In the Special, the Speedster and Traveler Special the motors have the inlet valves directly over the exhaust, the valves being operated by a rocker arm. The dimensions of the cylinders in the 50 horsepower models are 5⅜x5½, while in the 60 horsepower the bore is 5¾ and the stroke 5½. The ignition is Bosch high tension dual system, single unit coil, kick switch and storage battery, with both systems operating through the one set of spark plugs.

Left hand drive and center control are used in the two and the four passenger coupe new models, which have the underslung frame. Passengers and driver enter at the same door. A removable seat allows the driver to get in position behind the wheel. All the underslung models have been lengthened as to wheel base by two inches over previous models. The two passenger cars have 112 inch wheel base and the other models have a wheel base of 124 inches. The models known as Roadster, Roadster Special, Roadster Coupe, Speedster, Traveler, Traveler Special and Traveler Coupe will have the underslung frame, giving low center of gravity and permitting the car to attain high speeds without danger of skidding or overturning. This method of weight suspension assists in making possible a straight line from the universal joint to the differential, conserving engine power.

In the matter of road clearance, the point is made that the clearance of the American is two inches more than 80 per cent. of the cars built. In the Traveler, the Traveler Special and the Traveler Coupe models the clearance is 12¼ inches, while the Roadster, the Roadster Coupe, the Tourist and the limousine models have eight inches clearance when equipped with 36 inch wheels and ten inches when equipped with 40 inch wheels.



AMERICAN TORPEDO ROADSTER



AMERICAN TRAVELER COUPE

Detail changes, in addition to giving an increase in the chassis length so as to permit larger doors and more room in the tonneau, also are in evidence in the provision of rubber inserts under the wired asbestos clutch facing to facilitate easy engagement; pressed steel brake drums; forged rear axle sleeves; forged front axles, and what are described as "spiral gears in the transmission for constant mesh gears." An-

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other minor improvement is the simplified arrangement of the air pressure indicator, oil sight indicator and Bosch kick switch. These are sunk almost flush with the toe boards, doing away with a cumbersome coil and adding to the smooth appearance of the car.

The transmission gearing is arranged for four speeds forward and one reverse, with direct drive on the fourth forward speed. The control is an irreversible worm and sector steering gear, with eighteen inch steering wheel bearing spark and throttle levers on a stationary sector. An accelerator pedal or foot throttle also is provided. The cars have complete equipment, including top with slip cover, shock absorbers on the rear axle, Continental demountable rims with two spares, Prest-O-Lite tank, full lamp equipment, spare tire irons, horn, tool kit and jack.

No boasts are indulged in by the company concerning any enormous increases in production. During 1910 it built 300 cars and for the coming year the output will be 400 machines, and in order that every one of them may be good the factory at Indianapolis has been considerably enlarged, so that 80,000 square feet of floor space is available in the plant.

### Torpedo or Touring Car at Will.

For 1911 all Jackson cars will be of what is styled the "convertible torpedo" type, which is to say that they will be provided with a device which permits the attachment and removal, at will, of front doors and the beveled torpedo front or dash. The device will allow purchasers to convert their Jacksons from torpedos to standard touring cars, or vice versa, within 10 minutes, and thus to appear to possess practically two cars in one for the cost of only one car.

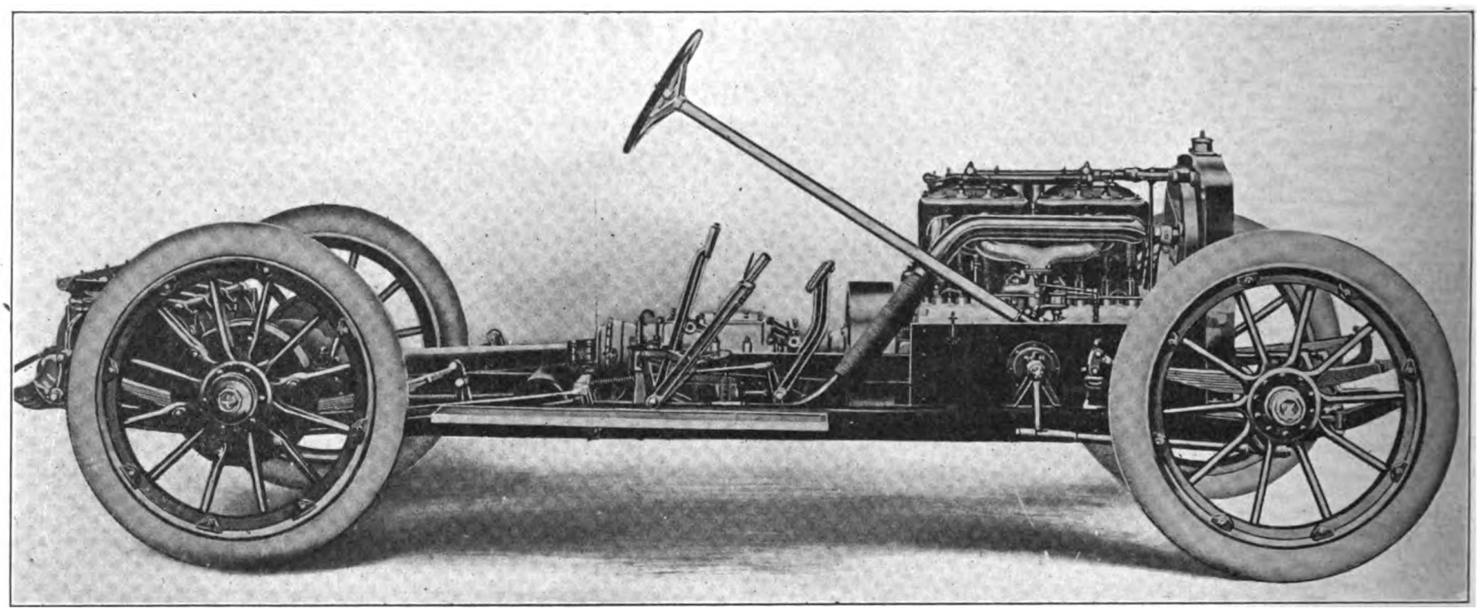
## RESUMES STANDARDIZATION TASK

### Society of Automobile Engineers to Continue the Movement—Appoints Committee for the Purpose.

Standardization of automobile parts and materials is to be attempted on a large scale by the Society of Automobile Engineers, which has appointed a committee for the purpose, and the work also will extend to such matters as machine tools, engineering methods and practices. Several standards already have been established, resulting from the work of the Mechanical Branch of the Association of Licensed Automobile Manufacturers when that department of the association was active. These are known as the A. L. A. M. screw standard and drill sizes, spark plug sizes, solid and adjustable yoke and eye rod end specifications, and the A. L. A. M. horsepower formula. The Society of Automobile Engineers has undertaken a continuation of the work of the now defunct engineering department of the motor car manufacturers' organization.

Subjects now in hand by the standardization committee of the Society include the specification and heat treatment of automobile materials; the indexing and digesting of automobile engineering literature; the compilation and publishing of an automobile engineer's hand book or pocket book; seamless steel tubing; sheet metal; lock washers; limits for screws and taps; round-cornered square holes and keyways; brake and clutch lever forgings; practice in plain and anti-friction bearings; wood wheel dimensions and fastenings for solid tires; shackle bolts; carburetter flanges, outlets, bolt-hole centre-distances, cap screws, gasolene connection, throttle levers and holes in same, water connections, and gaskets; automobile nomenclature; frame sections. The matter of sheet metal alone involves the consideration of the chemical composition, dimensions and standard of measurement of clutch discs, brake drums, body panels, mufflers, radiators, fenders, hoods, pans, fan blades, hub caps, dashes, steps, running boards, miscellaneous stampings, and many other parts.

The committee consists of Howard E. Coffin, president of the Society (ex-officio); Henry Souther, Hartford, Conn.; James H. Foster, Hydraulic Pressed Steel Co., of Cleveland, O.; H. S. White, Detroit Seamless Steel Tubes Co., of Detroit, Mich.; Charles T. Jeffery, Thomas B. Jeffery Co., Kenosha, Wis.; Elwood Haynes, Haynes Automobile Co., Kokomo, Ind.; H. W. Alden, Timken-Detroit Axle Co., Detroit, Mich.; Arthur Holmes, H. H. Franklin Mfg. Co., Syracuse, N. Y.; W. H. Van Dervoort, Moline Automobile Co., East Moline, Ill.; D. F. Graham, New Departure Mfg. Co., Bristol, Conn.; G. F. Merryweather, Motch & Merryweather Machinery Co., Cleveland, O.; A. C. Bergman, Simplex Automobile Co., New York; and Coker F. Clarkson, the secretary, 1451 Broadway, New York. Further enlargements of the committee will be made as necessary. Various sub-committees are being assigned to the work of investigating the separate matters involved.



SIDE VIEW OF AMERICAN UNDERSLUNG CHASSIS

### Year's Guarantee for Great Western.

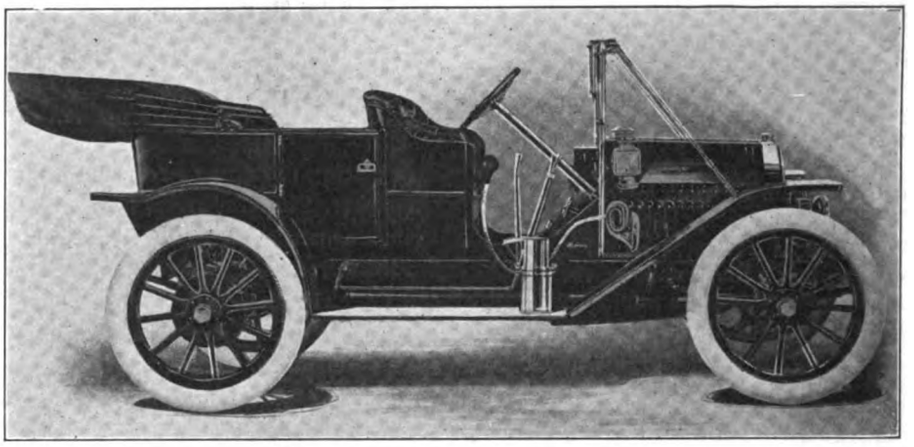
The Great Western Automobile Co., of Peru, Ind., has inaugurated a one year's guarantee system in connection with the 1911 Great Western "40." All cars will be guaranteed against defects, and the company will replace free of charge, for one year, any part of a car made by it.

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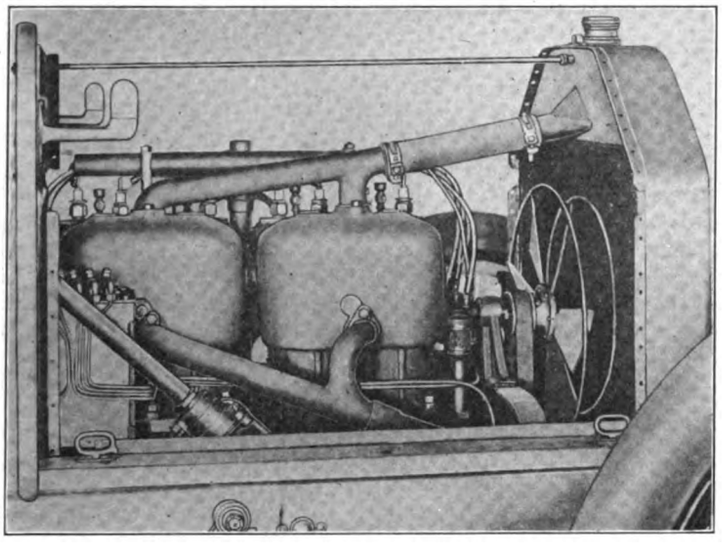
## MORE POWER AND LARGER BODIES

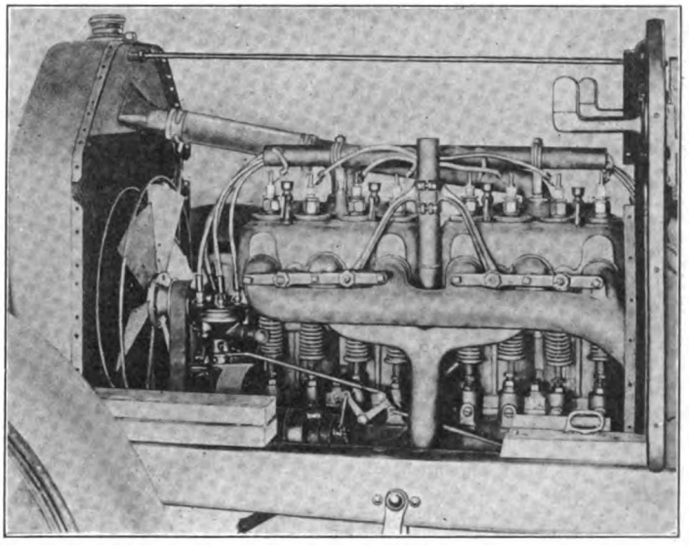
**Moline's New Offerings Have Increased with Two Types of Body. Dimensions—"Dreadnought" Chassis**

Much larger in many respects than the 30 horsepower offerings for 1910, the Moline for 1911 is produced in a single type of chassis and has a 35 horsepower engine. "Dreadnought" is the designation given the new product by the Moline Automobile Co., of Moline, Ill. It is supplied in two models or styles of body, known as the Touring type and the Toy Tonneau, respectively. The former is for five pasengers, and is deep, roomy and luxuriously upholstered, its seating proportions being very liberal. The small tonneau model is for four passengers. It is low in the seats and side panels, and is designed to present a somewhat striking appearance. The tonneau is removable, so that the car may be converted into a single rumble or a two passenger roadster. Both the four and the five passenger models have a full set of lamps and tool equipment, the only difference between them being the size and style of the body.



MOLINE 5 PASSENGER TOURING CAR



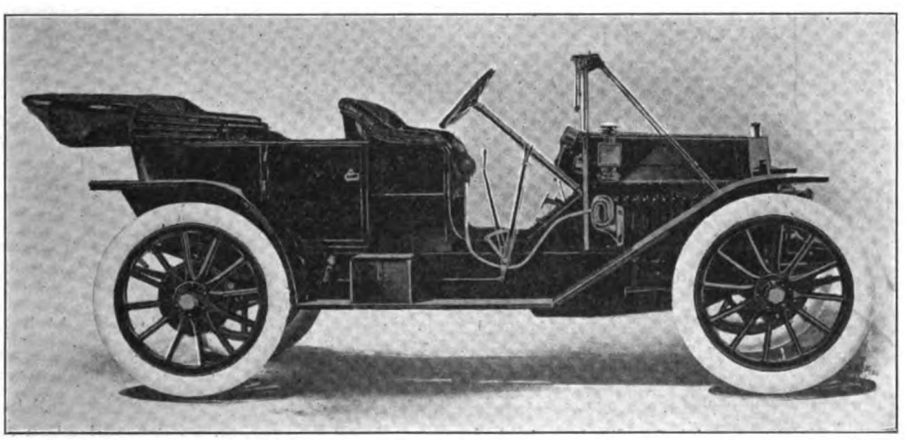


RIGHT AND LEFT SIDES OF THE MOLINE 35 HORSEPOWER ENGINE

Following general Moline characteristics, the "Dreadnought" chassis has a unit power plant with three-point suspension in the frame of the car. The motor has its four cylinders cast in pairs, with all the valves on one side. It is of the long stroke type, the bore remaining at 4 inches, as for 1910, but the stroke being increased from 4½ inches to 6 inches, developing 35 horsepower at moderate piston speed. Thermo-syphon cooling is continued, eliminating the use of a pump and its gearing.

For the ignition a double independent system is provided, comprising a Splitdorf magneto set and a battery set with distributor and coil. Each operates through a separate set of spark plugs, so that in case one system should fail the other is available.

Desirable improvements also have been been made in the lubricating system for the 1911 offering, a Precision oiler being used, with individual leads to the main bearings, the crank case and the cylinders. Splash lubrication from the oil pan of the motor gives further assurance of ample lubrication for all working parts inside the crank case. The oil pan is provided with a leveling device which serves to keep the oil level in the crank pits of all four cylinders, no matter whether the car be going up or down hill or on a side grade. The



MOLINE 4 PASSENGER TOY TONNEAU

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lubrication of the transmission and of the rear axle and differential gear is taken care of by an oil bath for all the revolving parts.

A leather faced cone clutch with cork inserts is used, as in the 1910 models, the bearings being enclosed as a protection against dust and dirt and against the unintended introduction of grease. The foot pedal levers in the new model are compound in their action, making them much easier of operation and avoiding the possibility of letting the clutch in too suddenly.

Four foot pedals are used, in addition to a shift lever for the sliding change gear and a lever for the emergency brake, which is interconnected with the clutch, so that the latter disengages when the emergency brake is applied. The clutch and the service brake each has its pedal, the other two being for the accelerator and the muffler, respectively. The spark and fuel control reside in two small levers on the top of the steering wheel pillar. Both the internal and the external brakes have been increased from 12 to 14 inches, and each set is double acting, having full effect whether the car is moving forward or back. The wheels, which heretofore have been 34 inches, now are 36 inches, fitted with 3½ inch tires, and the wheel base has been increased from 110 to 112 inches.

Emphasis is laid on the fact that with a moderate output and concentration on one type of chasis the company is in a faavorable position to produce cars of moderate price. It is asserted that the Moline is in no sense an "assembled" car, as the members of the company, under the firm name of Root-Van Dervoort Engineering Co., are manufacturers of sixteen years' experience in the making of gasolene motors, and the Moline company has developed its own plant to a point where only a minimum call is made on outside parts specialists.

### Tire Information on a Wall Hanger.

The necessity of inflating pneumatic tires to the correct air pressure is now pretty generally recognized as a means of getting due mileage from the tires. But in order to place this information where it constantly can be referred to by the motoring public, the Firestone Tire & Rubber Co. have prepared a wall hanger for garage display, containing a complete list of tire sizes and the corresponding air pressures. This hanger also illustrates and describes various types of tires that are now in use and the rims they will fit. Of special interest to motorists whose tires are not large enough for the load, is a list of eleven oversize Firestone tires. These tires are interchangeable with present tires on present rims, but are built considerably heavier and contain from 30 to 50 per cent. greater cushion of air, adding greatly to the easy riding of the car and reducing the ultimate tire cost.

## NEW BUS PRODUCED BY RENAULT

### Driver's Seat is Placed Over the Engine —Rear Axle Differs Somewhat from Conventional Practice.

In placing the driver's seat above the engine space, Renault Freres, the well-known French constructors, have arrived at rather a novel arrangement in their new omnibus chassis. The new type has been built to conform to the requirements of the Paris General Omnibus Co., and the first of the new series of chassis at present are undergoing road tests at the factory.

The general arrangement of the power plant is much the same as that employed on the standard five ton chassis, but this leads to the unusual disposal of the radiator at the rear of the seat and on either side. The cooling system is of the standard Renault gravity circulation pattern, with projections on either side of the engine casing, containing about a half dozen tubes. The front of the chassis has a wooden dashboard, on top of which is mounted the lubricator, with a hand-hole in front to give access to the motor. The entire cab is readily demountable. In accordance with the demands of the service for which the 'buses are constructed, the driver's seat is placed on the left, with the control levers centrally mounted.

The motor is of the four cylinder form and of approximately 4 11-32 by 6 9-32 inches, bore and stroke. The inverted-cone type of clutch is used, and the gearset is of normal construction and affords three forward speeds. The rear axle is the chief point of departure from standard practice. In this structure the differential casing is carried in a heavy cradle, tubular extensions to which house the driving shafts to the road wheels, much as in the case of the ordinary live axle.

In use, the cars will have transverse seats, this necessitating the mounting of a secondary structure over the main frame at sufficient height to secure the proper overhang. The wide platform at the rear is built on a channel steel frame. Solid tires are used. In regular service, benzol will be employed for fuel, instead of gasolene, this being the standard supply for the Parisian omnibus equipment.

### Declares Front Braking Dangerous.

Considering the amount of attention that has been paid to the subject of front wheel braking in England, it is rather interesting to note the reason why the application of this type of retarding device has not been extended more widely. In brief, the reason is that the Scotland Yard authorities, who formulate the requirements for all public service vehicles used in London, forbid their use as "dangerous." In connection with tests carried out a year and more ago, it was required to apply the brakes sufficiently hard to lock the wheels while the car was rounding a turn. Under this test, a car having front brakes failed to pull up within the required distance and slid around the turn.

Although advocates of front braking pointed out at the time that the locking of the brakes was incorrect manipulation, since it is important to prevent the wheels from slipping in order to secure the maximum braking effect, the Scotland Yard representatives present insisted that as the law required the use of brakes sufficiently powerful to lock the wheels, and as the application of the brakes to their full power might be practiced at any time by an incompetent driver, the test was a perfectly fair one. In consequence of this stricture, therefore, front brakes can be applied only when the standard form of equipment also is used in the rear.

### Concerning Rust and Corrosion.

Leading up to Toncan metal, which they manufacture, the Stark Rolling Mill Co., of Canton, O., have issued a very comprehensive treatise on the subject of corrosion of steel and iron, which sets forth, clearly and concisely, the facts concerning corrosion and rust, how and why they differ, their causes and what should be done to overcome them. Some interesting comparisons are made of old time iron and modern iron and steel, which comparisons make clear the fact that the degree of purity, homogeneity and density largely govern the life of iron and steel. The results of many comparative tests are shown by tables and illustrations, and these results will undoubtedly be of great value and interest. The general tone of the treatise is in line with the ideas of such eminent metallurgists as Cushman, Walker and Sang. No attempt is made to delve deeply into chemistry nor the fine points of metallurgy. The simplicity of the English is a prominent feature, particularly when the technical nature of the subject matter is considered. The many uses to which a rust-resisting product like Toncan metal is adaptable are described and illustrated. The illustrations throughout are fine halftone reproductions of photographs; the printing is in two colors, and the buff cover embossed in French vermillion, altogether as attractive a piece of printing as one would care to see.

### Refinishing Leather Surfaces.

For use in refinishing leather surfaces a well-known authority recommends the following liquid japan formula:

"To four pounds of molasses add half a pound of lamp black, half a pound of sweet oil, and an equal quantity of gum arabic, also half a pint of isinglass. Mix well in 16 pounds of water; apply heat, and when cool add one pint of alcohol."

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## AVOIDS THRUST AT DEAD CENTER

### Ingenious Crank Movement Designed to Aid Engine Efficiency—Details of the Foord Device.

Because in the standard form of gas engine construction the explosion occurs just at the instant when the crank and connecting rod are in the dead center position considerable loss of power may be supposed to occur. Indeed, were it not for the momentum of the fly wheel to carry the linkage over the dead point, no expansion of the gas could take place, and consequently the engine could not run. In consequence of this incidental disadvantage many attempts have been made to improve the mechanism

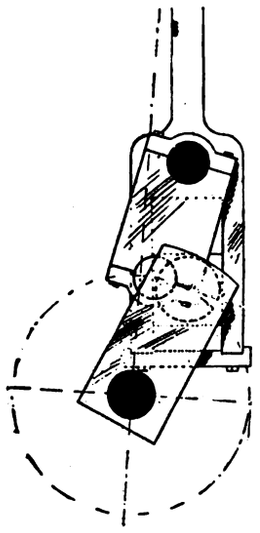


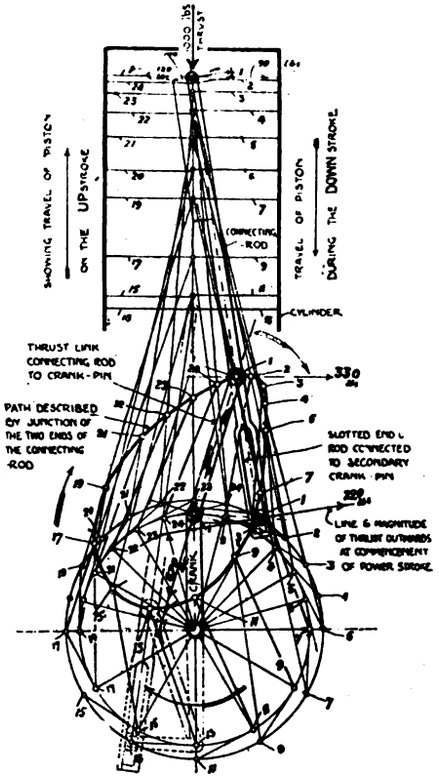
Fig. 1

by retarding the movement with relation to that of the crank at certain points in the stroke and accelerating it at others.

The most recent device of the sort, while decidedly "freakish" in appearance, nevertheless presents useful study of the subject and offers decidedly interesting possibilities in the way of improved engine performance. It is the invention of J. Kilby Foord, an English engineer, and is embodied in the new Foord engine. The accompanying Figs. 1 and 2 show the nature of the mechanism. A double crank pin construction is employed, the main "big end" bearing of the connecting rod being mounted in a block that slides in a slot provided in the lower end of the rod. The secondary crank center is connected to the rod, at a point some distance above its lower end, by means of two flat coupling links. The secondary center also is offset to the rear of the main crank pin to the amount of perhaps 20 degrees.

The effect of this arrangement is to cause the piston to dwell on dead center for a greater period than with the ordinary crank motion, so that when ignition occurs, at a later time than with the ordinary engine, the crank will have advanced materially beyond the dead point. The downward thrust of the gas then is expended to better advantage than is possible with the direct method of connection, the result being a reduction in side thrust against the cylinder walls and a stronger turning impulse early in the stroke. It is needless to add, that for this advantage, due compensation must be returned to the system on the up stroke.

A review of the finer theoretical points of the system, including a layout of the mechanism throughout the cycle of its movement, is quoted from the opinion of a




PLOT OF FOORD CRANK MOTION

British engineer, as printed in the Auto Motor Journal. Says this authority:

"Retarding the travel of the piston during the first half, and accelerating it correspondingly during the second half of the explosion stroke, may not appear a very important question at first sight, but on consideration it will be seen that for internal combustion engines run at the very high rates of angular velocity obtaining in present day automobile practice, a decided advantage would result if the piston of a motor run at a high shaft speed could be retarded in its rate of advance during the first half of the stroke relatively to the advance of the big-end of the connecting rod along the crank circle; that is, the crank-pin of a motor running with a piston speed of 900 feet per minute will, with a stroke of 4½ inches, advance 30 degrees from the dead center or zero position in 0.004 of a second—i. e., 1-240th, and the piston 0.037 of its stroke; and further when the crank has arrived at 90 degrees the piston will have traveled 0.6 of its stroke, provided the connecting rod has a length of three cranks and the axis of the cylinder is in line with the center of the crank shaft. Again at half-stroke of the piston, by which time the crank will have advanced 80 degrees, the angle of the connecting rod will be 19 degrees to the axis of the cylinder, and the side-thrust at mid-stroke equal to 0.3 of the total pressure on the piston. Of course with longer connecting rods these differences are less, also when the center of the cylinder is placed out of line with the shaft, a disposition that works to best advanage in an engine having no negative resistance during the return as by compression, as clearly the gain in having a more direct thrust on the down-stroke is counteracted by the increased angle at mid-return stroke, when a rod of three cranks

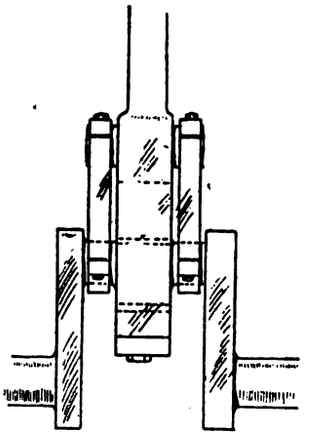


Fig. 2

in length would swing over to a maximum angle of 26 degrees. . . .

"The latest retarding device for the purpose of communicating a differential motion to the piston of a high-speed explosion engine relatively to that of its crank during the first half-stroke is, as will, no doubt, be gathered from an examination of the accompanying diagram, somewhat of a paradox. The peculiarity in the 'Kilby' compound differential crank-motion consists in the extraordinary action of the rod relatively to the piston, for, as will be seen by the illustration, the rod swings nearly 8 degrees from the perpendicular with the piston at the end of its stroke, the secondary crank-pin 1 at this period being 30 degrees in advance of the zero position 23 indicated on the outer circle. In explanation of this movement it must be stated that there are in reality two cranks separated by an interval of 30 degrees, the several positions of the two pins on this compound crank being indicated for clearness sake by a double circle; the inner crank-pin is connected to the piston rod by a thrust link and the slotted end of the rod pivoted to

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the piston is connected to the outer crank-pin by a bearing block having a sliding fit, the several positions of both of which are indicated at 15 degrees and 30 degrees intervals for one revolution.

"During the complete down-stroke the rod remains at an inclination to the cylinder line, ranging from 8 degrees to 12 degrees, and even the side thrust that would result from this small inclination is to a considerable extent neutralized by the thrust from the connecting link in the opposite direction; thus, at the zero position with a pressure of 1,000 pounds on the piston the net side thrust on the piston is 40 pounds, i. e., 140 pounds less 90 pounds, and at mid-stroke downwards the side thrust is almost negligible.

"This combination of compound rod and crank is thus seen to have the advantage of a straight line thrust in so far as the piston is concerned, and as the ratio of travel of the piston indicated by the lines on the cylinder diagram, 1, 2, 3, 4, 5 and 6—during the first half of the down-stroke, is clearly much greater than the ratio of travel during the last half of the stroke, indicated by the lines 9, 11 and 13—this novel and interesting motion would appear to be a decided improvement on the ordinary connecting rod, when applied to an explosion engine having a high speed of rotation; but as the two-fold gain derivable from the more direct thrust on the piston, and to its retarded advance during the period required for complete combustion of the charge, is obtained at the expense of doubling the bearings of the connecting rod, in addition to the sliding block for one of them; to making the rod in two parts, and lastly to doubling the cranks on the driving shaft—the net advantage is one difficult to exactly foretell. It must not be overlooked either that whatever advantage may be gained by lessening the piston friction, and by the higher thermo-dynamic efficiency that may be reasonably expected, there is to be set off from this the extra friction due to increased weight and number of parts."

### Relation of a Car to Punctures.

Under the title "The Automobile on Which Tire Punctures Are Rare," the H. H. Franklin Manufacturing Co., Syracuse, N. Y., has sent out a neat little booklet in which it tells about the tire equipment of Franklin cars, and the records in mileage put up by them. These records make a formidable list and tend to prove what the Franklin company always has claimed, that the Franklin is a car that is "easy" on tires.

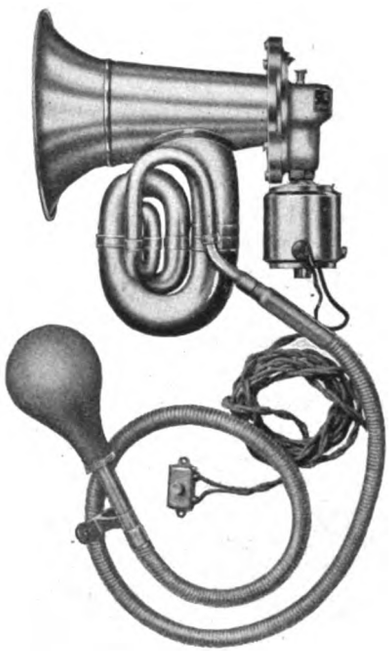
### Mexican Show Project is Abandoned.

Mexico City is not to have an automobile show next winter. American promoters and some of the local automobile dealers have been pushing the project for a large exhibition, to be participated in by American manufacturers, but the enterprise now has been dropped.

## PRESS EITHER BUTTON OR BULB

### One Gives Long Range Signal, the Other Sounds the Horn—Ingenious Two-in-One Instrument.

Combining a powerful warning signal for country roads and a mild signal for city streets and crossing, a new instrument, which is a distinct accessory novelty that is thought by many to "solve the problem" and which is known as the Combination Klaxon, has been brought out by the Lovell-McConnell Mfg. Co., of Newark, N. J. As shown by the accompanying illustration, the device is a combination of



THE COMBINATION KLAXON

the Klaxon electric horn with a vermiculate reed horn, both having their sound outlet in common in the one bell. By reason of its combination with the Klaxon, the reed horn is claimed to have its deep vibrant tone intensified and strengthened, the Klaxon diaphragm acting as a sounding board for the reed signal and the peculiar shape of the Klaxon projector serving to strengthen and direct its force. The combined instrument, which sells for $50 complett, affords two warning signals, one for long distance and emergency use and the other for short range use. The button for the Klaxon and the bulb for the reed are side by side, enabling an instantaneous choice as to which signal shall be used.

### Fitting New Carburetter to Old Car.

Fitting a new carburetter to an old car by no means is as simple an undertaking as it may seem, particularly if the new apparatus happens to involve a different method of heating from that which previously has been in use. If, for example, the new carburetter is water-jacketed, whereas its predecessor was heated from the exhaust manifold, particular care is necessary. The water jackets on the engine must be tapped in such a way that uniform circulation of water will be ensured, while it also is important to make sure that the circulation over the cylinder walls is not impaired. Perhaps the greatest difficulty the average amateur mechanic will have to contend with, however, is that of leakage from the pipe joints. To prevent this it is important to see that the new carburetter is firmly held in position, the piping laid out so as not to be strained in making the attachment, and also that due allowance is made for lost motion between the motor and the frame of the car, to which the carburetter usually is attached.

### Effect of Renewing Valve Springs.

Although it seldom is considered necessary to renew the exhaust valve springs on motors that appear to be in good condition as far as the valves are concerned, there is good reason to believe that such a proceedure not infrequently would give beneficial results in securing a more prompt closure of the valves. It is known that under some circumstances the strength of an exhaust valve spring of the common helical type may decrease as much as 35 per cent. in the first six months of use.

### From Testing Room to Test Track.

With an eye to facilitating the road testing of its cars the Regal Motor Car Co. has just constructed a testing track which circles the testing house at its Detroit plant. The arrangement permits the cars to be run directly on the track from the test house, after they have there been given complete stationary tests, and subjected to the standard running tryout without necessitating their being put on the public highways at all.

### Road Dust in the Carburetter.

The use of well-made "sod-pans" on cars of the better class has done away with a good deal of the old carburetter trouble that used to result from the entrance of road dust into the ports controlled by the automatic air valve. But this trouble is not altogether eliminated. On cars which have been in use for some little time, dust deposits frequently are responsible for irregular running and other troubles arising directly from defective air valve operation.

### Blames Cars for Higher Carriage Prices.

Blaming the automobile factories as responsible for great increases in the cost of labor and materials for the carriage trade, the Carriage Manufacturers' Association of North America, in session at Louisville, Ky., last week, has decided that an increase in the price of vehicles is necessary. The percentage of increase necessary is not indicated.

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## ALL WELCOME EXCEPT JERSEYITES

**New Decision of New York State's Attorney-General Removes Restrictions on Visitors—Reverses Himself.**

After all, New York will be satisfied with half-portion reciprocity, even a highly trained legal mind having found it possible and advisable to reverse itself. Attorney-General O'Malley is the possessor of the mind in question. His recent famous and apparently sound decision to the effect that the exemption from registration and unqualified freedom to use the roads of New York granted by the Callan law to residents of other states offering "like exemption" means exactly what it says, caused the storm of protest that was expected, and it was so strong that O'Malley was unable to withstand the pressure.

Accordingly he indulged in a second "think," and discovered that any old exemption from registration accorded New Yorkers by other states, whether for one day or 30 days, was good enough to meet the law and as a result of his change of mind, the motorists of New Jersey are practically the only ones who cannot enter New York at will and stay as long as they please without payment of a fee of any sort. As New Jersey exacts an "admission fee" from everyone, New York's door is closed to its citizens to whom it will open only when they pay the same fees as are paid by New Yorkers themselves.

As none of the states limiting non-residents to short periods has discovered efficient means of "keeping tabs" on the number of visits or the lengths of the stays of the visitors, such restrictions practically have been dead letters anyway.




HERALDING A TRIUMPH AND SHARING THE GLORY

### Proclaiming a 24 Hours Victory.

Wyckoff, Church & Partridge, the Stearns agents in New York, have been making the most of the Stearns's victory in the recent 24 hours race on the Brighton Beach track, in which a new record of 1,253 miles was set up. The huge sign displayed on their handsome building, shown by the accompanying illustration, is one evidence of it, and the remarkable part of it is that the New York firm is sharing the glory. The sign mentions also the several items of the car's equipment, including Continental tires, Bosch magneto, Witherbee batteries, Prest-O-Lite tank, and all parts were lubricated by Havoline oil. The Stearns agents also have figured out that the car's average, 52⅛ miles per hour, is faster than the time made by the 20th Century Limited over a roadbed with few curves, while the Stearns car negotiated 2,506 curves during the race, with a greater number of stops than the famous train between New York and Chicago.

### "T. R." Places His Order for 1911.

Although it is but little more than a couple of months since "T. R.," otherwise Theodore Roosevelt, personally purchased a Haynes car, he already has placed his order for a 1911 model of the same make. And James A. Braden, of the Diamond Rubber Co., has arisen to remark that in his order Col. Roosevelt again has specified that Diamond quick detachable tires, 34 x 4 inches shall be the equipment of his new car.

## DISCOVERS NEW "FRAME UP" GAME

**Dealer Tells of Neat Trick of Rivals for Spoiling a Demonstration—Vigilance is Needed.**

It is by devious ways that the wily salesman goes through the successive steps of "catching," "showing" and "landing" his prospective customer. But of all the artful little practices that are brought into service when it is not only the prospect's incredulity but the counter efforts of a rival salesman that have to be combatted perhaps none is more adroitly worked and less often detected than is the frame-up demonstration. Like any other bit of chicanery, much of the detail of the frame-up demonstration depends upon the circumstances, and so, too, upon the individual taste and cunning of the framer-up.

An illuminating and not too complicated example in point is furnished by G. W. Garland, a New York dealer. In this case the party addressed is supposed to be the victim of the "frame," while the guileless intending buyer is an innocent accessory to the deal. You and the plotter are in hot pursuit of the same prospect and matters have progressed to the point where the scene is shifted to the state of Missouri, figuratively speaking. As Garland explains it the proceedings will follow somewhat as follows:

"First, the dealer will challenge you to a hill-climbing contest or a speed test. He will offer to bet any amount of money you will cover. You believe he has an especially prepared car for the competition, so you decline. Your rival then lets it be known that you are afraid to compete against him and tells his customers he will force you into some kind of a contest or other.

"Then the dealer's representative, posing as a prospective customer, will call on you, and make it appear that he wants a nice easy demonstration. This will put you off your guard and you are likely to send him out in the first car at hand whether it has been tuned up or not, and probably you will be just as careless about the driver. At least that is what occurred in my case, and the inexperienced driver fell an easy victim of my competitor's scheme.

"Your competitor will meet your car somewhere along the road and start to badger the driver. He will offer to bet a hundred, a thousand or any other amount of money that his car can beat your car climbing hills or on the flat. The driver will probably get fussed and then your rival can mold him to his will. He will then prove to the satisfaction of his customers that his car is as good, if not better, than yours."

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### How Motors May Affect Milk Prices.

Ever increasing as is the economic influence of the motor car, it is not often realized to what an extent the motor truck enters into the important, almost vital, problem of supplying the big cities with provisions. In Boston, Mass., for instance, the milk supply of late has been very uncertain because of the refusal of the wholesalers to pay the prices demanded by the farmers. The latter claimed to be unable to deliver milk at the old figures, while the wholesalers declared they could not afford to pay the advance and the railroad charges. At this stage of the proceedings the motor car entered and admitted of a solution of the difficulty. H. S. Pinkham, one of the largest producers of milk in Clinton, Mass., is installing a number of powerful motor trucks capable of carrying 100 cans from Clinton to Boston in two hours. He advises the farmers of the neighborhood to band together and also buy several of these trucks, and then to deliver the milk from their farms in Boston direct.

"The automobile is going to ring down the curtain on the contractor who has been sitting in his office in Boston and reaping the reward that rightfully belongs to the farmers," he says. "These big trucks can leave Clinton at midnight and be in Boston at two o'clock in the morning, in time to leave the milk at the door of the consumer for breakfast. This can be done and milk sold at retail at a lower price than today, and the result will give the farmer a bigger profit for his labor."

### What They Did to a Popular Official.

After a fake arrest by a bona-fide motorcycle policeman, on a charge of speeding and throwing dust in an officer's eyes, Will H. Brown, vice-president of the Willys Overland Co., at the Overland factory in Indianapolis, Ind., was conducted first to the police station and then to the factory for a mock trial before a jury of friends and employes, where he was defended by President John N. Willys against the vigorous prosecution of James E. Kepperly. He was finally acquitted, after which the foreman of the jury presented him with a jeweled Mystic Shrine pin, the gift of the employes of the company. He also was given a camera. Speeches, music by the Overland band, ice cream cones and cigars helped celebrate Brown's "acquittal."

### Why Special Signals for Police Wagons.

Claiming that the "hurry-up" wagon of the Sioux City police department was hindered in the performance of its duties by officious police officials who failed to recognize it and who halted it for speeding, Superintendent of Public Safety R. S. Whitley has perfected plans to make the car easily distinguished from all other automobiles, both day and night, by adding to it a whistle, peculiar to this car and protected from imitation by special ordinance, and a glaring red light in front between the white lights. Supt. Whitley says this step is necessary because the police car is in duty bound to exceed the regular speed limits in the city in emergency calls, and he intends to make conditions such that the car will have the right of way in the streets of the city and suburbs at all hours, with the least possible annoyance.

### Good Roads Convention Dates Advanced.

Complying with the request of the American Contracting Engineers for a joint meeting, the dates for the third annual national good roads convention at St. Louis, Mo., have been changed from October 6-8, the original setting, to September 26-29, permitting both bodies to work in conjunction. The coming gathering of road builders promises to be larger and more productive of results than ever before, and will be attended by prominent members of all bodies having an interest in the good roads movement, including the National Grange, Farmers' National and Co-Operative Union, United States Office of Public Roads, American Automobile Association and various automobile clubs.

### Murder Mystery in Pennsylvania Garage.

While laying a pipe line under the floor of a garage at Point Marion, near Pittsburg, Pa., on Saturday last, W. L. Harvey, proprietor of the place, unearthed the mutilated body of his former manager, Frank Ringle, aged 54 years, who mysteriously disappeared from his home on August 16th. The authorities are investigating the matter, and have arrested Louis Laurier, an employe of the garage, charging him with murder and robbery, Ringle having had $100 in his pockets before he disappeared, and not a cent being found on his body.

### Motors for Mails in Constantinople.

Motor cars and motorcycles are to be employed by the postal authorities in Constantinople in the future. Tests have proved that these vehicles can be utilized to good advantage over the roads of the Turkish capital. A parcels post service has been decided upon in which motorcycles will be used for rapid and certain work. Motor cars will be used for collecting mail and conveying it between the substations in the city.

### Healthfulness of Gasolene Vapor.

Fumes from motor omnibuses and other gasolene driven vehicles are powerful insecticides, according to a London chemist. The creosote vapor exuded from the exhaust pipes, he says, is not only a fly killer, but as carbonized matter it clears the air of germs and other impurities. Other Londoners, however, declare the vapor a nuisance, even though it be healthful.

### Cost of Spattering Mud on a Gown.

Sentencing a motorist to a fine for careless driving, the payment of damages to a woman whose dress was ruined by flying dirt and the costs of a suit which was carried through all the courts to the very highest in the land, the president of the "Oberlandesgericht" of Saxony rendered a decision of the greatest importance to all motorists touring in the Kingdom of Saxony. He said, in substance, that "Automobilists should exercise due care when driving along a road generally used by pedestrians, so that flying dirt or mud would not reach the latter. In case the road is wet, an automobile should not be driven at such a rate as would cause water to be thrown further than two feet from the wheels. If an automobilist ignores these warnings and causes damages to the clothes of pedestrians on such roads, he is liable to damages equal to the original cost of the dresses or other clothes ruined." The motorist whose many appeals brought forth this opinion from the supreme bench had driven along a muddy road at a 15-mile clip and spattered a woman's dress with mud for which he paid 2,500 marks in costs alone, and in addition a fine of 100 marks, and damages of 200 marks, or about $700 in all.

### Two Dead Dogs Lead to Court.

"Which has the right of way—an automobile or a dog?" is the important question that is being thrashed out in two court cases in Riverhead, Suffolk County, Long Island. Two canines met with untimely deaths under the wheels of motor cars. Nate Downs is suing Luther B. Chambers of Port Jefferson, and Capt. George A. Vail is suing Chauncey Young of Riverhead. Downs wants $50 for his plain pup, while Vail places the value of his late lamented beagle hound at the same amount.

### Bookworm Now Blames the Automobile.

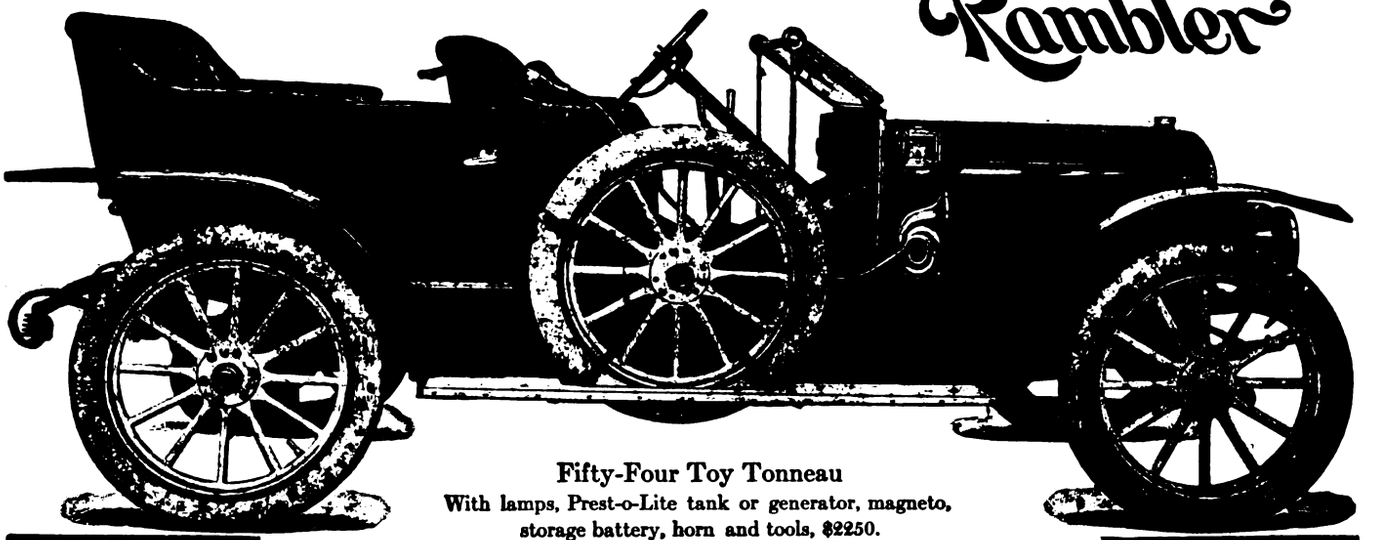
Complaints as to the evil influence of the automobile may be heard in many quarters just now, but of them all perhaps the one least likely to arouse the industry to the need of arising en masse for purposes of self-defense is that of the City Librarian of Bloomington, Ill. The Keeper of the Books asserts that the automobile and the moving picture show are responsible for the recent depopulation of the local reading rooms. Those who can, resort to automobile touring, all others to the moving pictures.

### Where Drivers Greatly Exceed Cars.

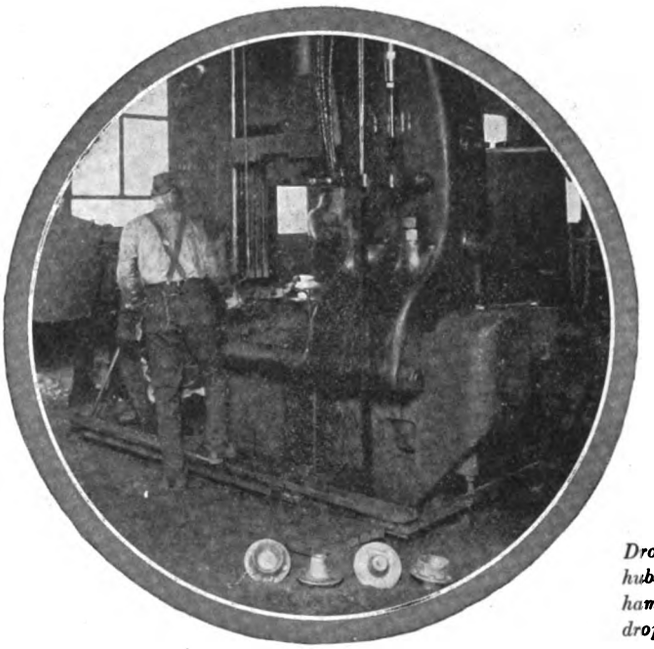
During last year the London county council issued no fewer than 27,535 drivers' licenses under the motorcar acts. The number of motorcars registered during the year was 7,196. This is a somewhat strange reversal of American conditions, where the number of registrations always exceeds that of the licenses for drivers.

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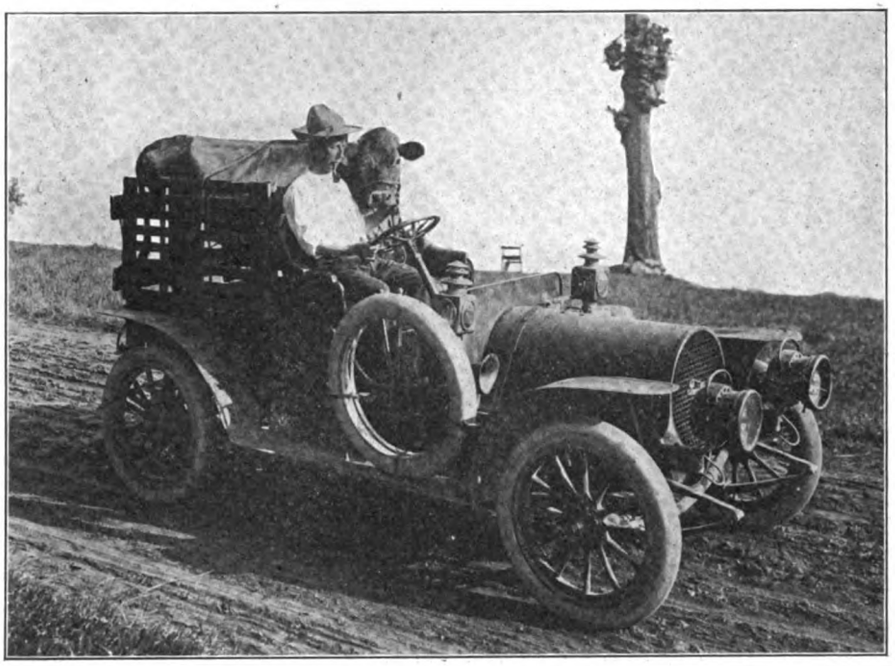
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## "VERSATILITY" OF THE MOTOR CAR

**Two Widely Separated Instances Illustrating Its Usefulness for Farmerfolk—How Live Stock is Conveyed.**

While the automobile often has been used to carry baggage, trunks, or even farm products from the country to the city, its utility as carrier of live stock rarely has been appreciated. That it is possible, nevertheless, to transport cows, calves and other live stock to and from the farm by means of an ordinary touring car is clearly proven by the accompanying illustrations, in which a Reo and a Franklin are shown in this utilitarian role.

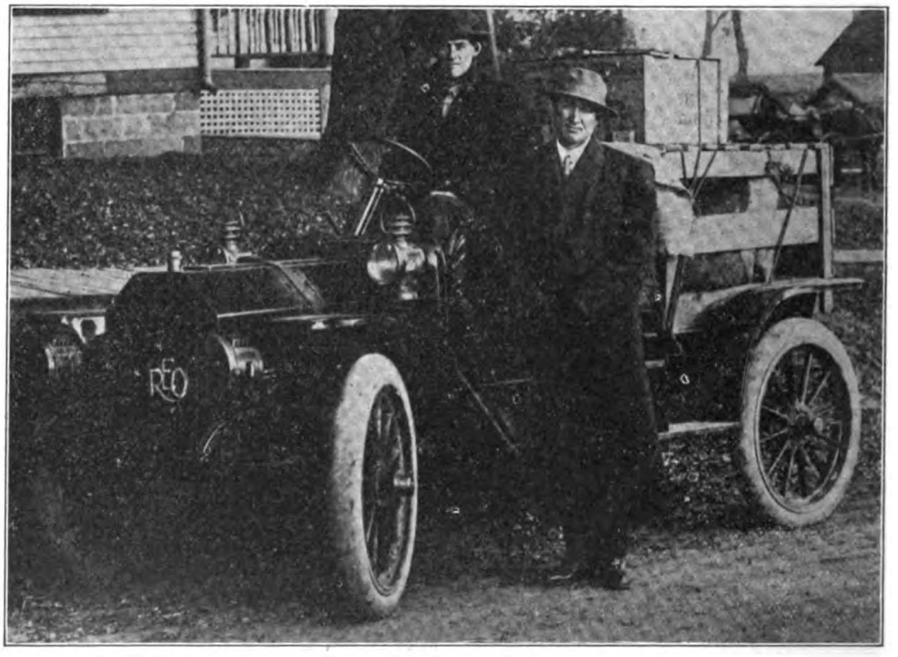


HOW THE NEW YORK FARMER CARRIED HIS COW

The Franklin, which has as passenger a full-grown cow, is a 1906 model of twenty horsepower and is guaranteed by the owner to have run 100,000 miles since it left the Franklin factory at Syracuse. His farm is at Cleveland, N. Y., and the run from Syracuse, 34 miles, was made in an hour and a half with the cow in the improvised stall on the chassis.

On one occasion the Franklin car was utilized in transporting two young calves from Syracuse to the farm, and Mr. Wheeler, the owner and driver of the car, loaded them into the front seat, held their heads with one hand and steered with the other, while another man beside him kept the animals from falling out.

The Reo also has a four-footed passenger in the space where the tonneau usually is, and from the resigned expression on the face of the man standing alongside the car, it must have been something of a job to get its live cargo aboard. Once it was safely anchored in the roughly built stall, however, the little Reo took good care of its unusual passenger and carried its burden without trouble to the farm, many miles from the town in Iowa where the animal was bought.




THE IOWAN, TOO, MAKES HIS CAR DO DOUBLE DUTY

**National Park Opened to Automobiles.**

Automobiles and motorcycles may now be driven through the General Grant Park in California unmolested. The Secretary of the Interior has decided that the park roads are of such a character as to permit operation of motor vehicles without danger to the occupants of horse drawn conveyances.

## THE RIGHTS OF THE PEDESTRIAN

**Germany's Supreme Court Rules that He Can Walk Anywhere on the Road—Injured Soldiers Obtain Damages.**

Ever since automobiles began to use the roads of Germany, there has been expected a clash between the military authorities and the local police department in connection with the side of the road on which columns of infantry ought to march. The military regulations allow the commanding officer of marching troops to choose the side of the road best suited to walk on, while the police regulations distinctly name the right side of the road to be used by vehicles under any and all circumstances. A foreign automobile which happened to run into an infantry column which was on the wrong side of the road, and to hurt some of the soldiers, brought the matter into court. Criminal and civil proceedings against the chauffeur and the owner of the automobile were instituted, with the result that both were sentenced to pay damages. The defence, in appealing the case, claimed that in so far as the military regulations conflicted with the police regulations, the former were illegal; but the appellate court as well as the highest court in the Empire, the Reichsgericht, decided that the military authorities were within their rights, and that no law could be found which compelled pedestrians to walk on the right side of a country highway. The appeal was thrown out and the decision of the lower court affirmed.

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## RECENT PATENTS.

964,589. Road Vehicle Suspension Arrangement. Frederick Walton, London, England. Filed Sept. 9, 1909. Serial No. 516,966.

1. In a vehicle suspension arrangement of the kind described, the combination with an annular tubular air spring of two compression springs, and two tension springs arranged at right angles thereto within the space surrounded by he annular tubular air spring, shoes carried by the compression springs to support the inner peripheral portions of the tubular air spring, and saddle shaped members connected to the tension springs and also with he tubular air spring.

964,632. Vehicle Wheel. Sebastian Ziani de Ferranti, Grindleford, England. Filed Nov. 14, 1907. Serial No. 402,185.

1. In combination in a wheel, a hub having relatively movable members; a rim; a plurality of tension spoke units each movably engaging with each of said hub members at certain symmetrically disposed points, each of said spoke units being rotatable about an axis passing through its points of engagement with said hub members together with means for detachably securing said spoke units to said rim.

964,637. Oil Feeding Mechanism. Guido Fornaco, Turin, Italy, assignor, by mesne assignments, to F. I. A. T., Poughkeepsie, N. Y., a Corporation of New York. Filed Feb. 17, 1909. Serial No. 478,455.

1. The combination in an oil feeding system with an engine, a reservoir and a pump, of means for supplying the bearings with oil under pressure and manually controllable means adapted to indicate an obstruction to the flow.

964,783. Armor for Pneumatic Tires. Charles E. Huxley, Chicago, Ill. Filed July 23, 1909. Serial No. 509,080.

1. A tire armor comprising round, flexible strands or cables arranged to extend transversely across the tread of the tire and being in contact with each other at the tire tread and laterally overlapping each other at their ends at the sides of the tire, and fastening means engaging the ends of said strands or cables for fastening them upon the tire.

964,845. Coin Control for Motor Vehicles. Alexander P. Brower, Brookline, Mass., assignor to Lawrence F. Sherman, trustee. Filed Aug. 28, 1909. Serial No. 515,063.

1. The combination in a coin-controlled mechanism for automatically controlling the operation of motor-propelled vehicles or vessels, of a sparking or other operating circuit provided with a gap arranged to be closed by a coin or token, a coin retaining and releasing device having electrical connection with one terminal of said circuit, a member arranged to be contacted by the coin and having electrical connection with the other terminal of said circuit, and means operating independently of said circuit for maintaining said coin retaining and releasing device in coin retaining position for a relatively long predetermined period.

964,847. Speed Changing Mechanism. Frederick C. Brunhouse, Philadelphia, Pa. Filed Aug. 23, 1909. Serial No. 514,145.

1. In a speed changing mechanism, a driving shaft, bevel gears of varying diameters secured thereon, a two-part driven shaft, a differential mechanism operatively connecting the two parts of said driven shaft, a differential case, a disk secured thereto, annular gears concentrically mounted upon said disk, pins secured to said annular gears and slidable in openings through said disk, and means for actuating said pins, substantially as described.

964,977. Tire Protector. Joseph L. La Driere, Albuquerque, N. Mex. Filed Jan. 31, 1910. Serial No. 541,135.

In a tire protector, the combination with parallel rings; of sections of concavo-convex form in cross-section, each section being formed in one piece and having a square end and also having at its opposite end an outwardly extending flange curved in conformity to the major portion of the section and provided with an outer square edge and receiving the opposite square end of an adioining section and also having inwardly bent portions at the ends of said flange and curved arms depending from said bent portions and arranged in transverse alinement with the flange and provided with outwardly extending lugs in which are apertures oblong or elongated in the same general direction as the transverse curvature of the section and which apertures loosely receive the said rings.

964,979. Spring Wheel. John Lee, Oelwein, Iowa. Filed May 16, 1908. Serial No. 433,172.

1. A vehicle wheel comprising a spoke rim having flanges on its sides, one of said sides being removable, an outer sectional




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rim having its sections arranged between the sides of said rim and adapted to move radially, guides located upon said sections, resilient yokes carried by said sections and adapted to extend from one section to the adjacent section, means for pivotally connecting the adjacent ends of pairs of said yokes, said means engaging said guides, and resilient shock absorbing means between said yokes and said spoke rim.

965,014. Steering and Cranking Mechanism for Motor Driven Vehicles. Byron C. Riblet, New York, N. Y. Filed Nov. 13, 1909. Serial No. 527,838.

1. In a motor driven vehicle, the combination of the steering wheels, and gas engine having a crank shaft, with the telescoping cranking shaft and steering post operatively connected with the engine crank shaft and steering wheels respectively, and a crank removably mounted upon said cranking shaft.

965,030. Hill Climbing Wheel. Daniel C. Slaght, Easton, Pa. Filed Aug. 18, 1909. Serial No. 513,500.

1. In a vehicle wheel the combination of an axle; a gear wheel concentrically mounted thereon; a second gear wheel surrounding said first gear wheel eccentrically mounted on said axle and intermeshing with said first gear wheel; means permitting said axle to rise and move eccentrically with relation to said second wheel when an obstruction is encountered; and an eccentric ball bearing carried by said second gear wheel; substantially as described.

965,076. Tool for Putting on and Removing Pneumatic Tires. Louis Felix Carle, Courbeovic, France. Filed March 19, 1909. Serial No. 484,480.

1. An apparatus for mounting and removing pneumatic tires comprising an inner member adapted to rotatively engage the hub of the wheel, an outer member slidingly engaging the inner member, and a cross piece on the outer member comprising at one side an outward hook adapted for engagement with the inner face of the bead of the tire and a shoulder for bearing against the outer face of the rim to cause the removal of said bead from within the rim and at the other side an inward hook adapted for engagement with the inner face of the edge of the rim and having a face inclined inwardly for guiding the edge of the tire inward.

965,681. Wheel. Samuel Bagnell, Hankinson, Miss. Filed Dec. 4, 1909. Serial No. 531,324.

1. The combination with a drive wheel, of a disk having a central laterally extending hub for receiving the hub of the drive wheel, and provided with means for detachably engaging the spokes, a plurality of segmental blocks secured to the face of the disk adjacent to the periphery, the adjacent edges of the blocks being spaced apart to form radial guideways, a pawl or claw movable in each guideway, a ring secured to the blocks and covering the outer ends of the guideways, a second ring within the first ring and provided with a plurality of cam-shaped slots, pins on the pawls engaging the slots, a cover plate secured to the blocks, and provided with an arc-shaped rib, a pin secured to the last named ring and ertending through the slot for operating said ring, and means for locking the ring with the outer ends of the pawls flush with the periphery of the disk or projected therebeyond, said means comprising a pin movable transversely of the cover plate, the ring having openings for engagement by the pin, and a spring normally holding the pin in engagement with an opening.

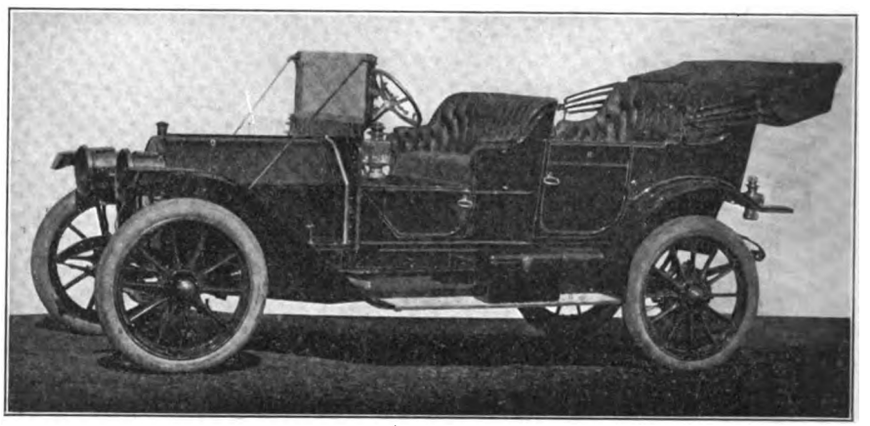
965,695. Tire Protector. William T Dorgan, Saginaw, Mich., assignor to William J. Wickes and Arthur D. Eddy, Saginaw, Mich. Filed Dec. 20, 1907. Serial No. 407,364.

1. The combination with a tire, of a tire protector carried exteriorly of the tire and held firmly in place solely by the inflation of the tire, and flexible lipe secured to the margins of the protector and adapted to hug the outer face of the tire.


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| | |
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| 6-60 seven passenger Touring Car, including mohair top, side curtains, dust hood and demountable rims | $3,250.00 |
| 6-50 five passenger Touring Car, including mohair top, side curtains and dust hood | 2,700.00 |
| 6-50 four passenger Toy Tonneau, including mohair top, side curtains and dust hood | 2,700.00 |
| 6-50 two passenger Meteor | 2,650.00 |
| 4-40 five passenger Touring Car, including top, side curtains and dust hood | 2,250.00 |
| 4-40 four passenger Toy Tonneau, including top, side curtains and dust hood | 2,250.00 |
| 4-40 two passenger Runabout | 2,200.00 |
| 4-30 five passenger Touring Car, including top, side curtains and dust hood | 1,675.00 |
| 4-30 four passenger Toy Tonneau, including top, side curtains and dust hood | 1,675.00 |
| 4-30 two passenger Runabout | 1,625.00 |

Write for complete Specifications

B C K MOTOR CAR COMPANY, York, Pa.


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# MICHELIN



## TIRES WIN



## "AS USUAL"

## At Indianapolis Motor Speedway

**SATURDAY AND LABOR DAY**

### Two Hundred Mile Heavy Car Contest

**SEPTEMBER 5th**

| | | | |
|---|---|---|---|
| **FIRST**— | National, | Aitken. | Michelins **"As Usual."** |
| **Second**— | National, | Livingstone. | Michelins **"As Usual."** |
| **Third** — | McFarlan, | Barndollar. | Michelins **"As Usual."** |

### One Hundred Mile Remy Trophy Contest

| | | | |
|---|---|---|---|
| **FIRST**— | National, | Wilcox. | Michelins **"As Usual."** |
| **Second**— | National, | Merz. | Michelins **"As Usual."** |
| **Third** — | Speedwell, | Clemens. | Michelins **"As Usual."** |

**Of the Ten Contests Saturday, Michelins Won Eight.**
**Of the Nine Contests Labor Day, Michelins Won Eight.**

# MICHELIN

**MILLTOWN NEW JERSEY**


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USERS OF
INVADER OIL
THE OIL THAT GRAPHITIZES

are responsible for its popularity
You Name the Car
We'll Name the Grade
Made only by
Chas. F. Kellom & Co.
113 Arch St., Philadelphia
Registered Trade Mark.
Boston Branch: 284 Columbus Avenue.

GRAY & DAVIS
LAMPS STANDARD OF THE WORLD
GRAY & DAVIS, Amesbury, Mass.

CONTINENTAL
MOTORS
Built for Individuals and Automobile Manufacturers.
24 to 50 H. P.
Write for Catalog

CONTINENTAL MOTOR MFG. CO.
MUSKEGON, MICHIGAN.

SAVE YOUR TIRES

by attaching to your Air Pump a
SAFETY TIRE GAUGE
PRICE $1.50 ALL DEALERS or by mail on receipt of Price and 6c. postage.
SAFETY TIRE GAUGE CO., 1462 Michigan Ave., Chicago

LASCO FOLDING GLASS FRONT
Simple, effective, correctly designed mahogany finish wood frame—trimmed in brass—3-16 crystal plates—steel stay rods—bottom of frame shaped to dash of any standard automobile—can be attached easily and quickly. We make the London Tops. Write for details and prices.
LONDON AUTO SUPPLY CO.,
2542 Wabash Ave., CHICAGO, ILL.

Repair tire and casing cuts with the
Auto Eleck-Trick Vulcanizer
DURABLE — ECONOMICAL — EFFICIENT
Price with Repair Material and Garage Kit, $15.00
JAMES L. GIBNEY & BRO.
217 N. Broad St., PHILADELPHIA 248-52 W. 54th St., NEW YORK

Remy Magneto
"BEST IN THE WORLD"
Leads in Efficiency—Built in World's Largest Magneto Factory.
REMY ELECTRIC CO. ANDERSON INDIANA

Packard CABLE has no equal
Get the Best
The Packard Electric Co., Warren, Ohio

ON INLAND SEAS YOUR VACATION TRIP


ALL the important ports on the Great Lakes reached regularly by the excellent service of the D. & C. Lake Lines. The ten large steamers of the fleet are of modern steel construction, propelled by powerful engines, and have all the qualities of speed, safety and comfort. The United Wireless Telegraph Service used aboard.
The D. & C. Lake Lines operate daily service between Detroit and Buffalo, Detroit and Cleveland, four trips per week between Toledo, Detroit, Mackinac Island and way ports, and two trips per week between Detroit, Bay City, Saginaw and way ports. About June 25, a special steamer will leave Cleveland twice a week direct for Mackinac, stopping only at Detroit every trip and Goderich, Ont., every other trip. Send two-cent stamp for illustrated pamphlet and Great Lakes map.
Rail tickets available on steamers.
Address
L. G. LEWIS, G. P. A., Detroit, Mich.
P. H. McMillan, Pres. A. A. Schantz, Gen. Mgr.
THE COAST LINE TO MACKINAC
Detroit & Cleveland Nav. Co.

The Petrel A Real Automobile
$1350
SPENCER, LLANO, DRINER CO., Inc.
1777 Broadway Agents Wanted NEW YORK


FOR NIGHT TRAVEL
Between CHICAGO, ST. LOUIS and KANSAS CITY choose "The Only Way"
Chicago & Alton R. R.
Electric block signals, electric search head-lights, electric lighted trains, over a completely rock-ballasted roadway underlaid with boulders and underdrained with tile.
A Railroad with Character
GEO. J. CHARLTON Passenger Traffic Manager
R. J. McKAY General Passenger Agent

THE MOTOR WORLD PUBLISHING COMPANY
154 Nassau Street, New York

Enclosed find $2.00 for which enter my subscription to
The Motor World
for one year, commencing with the issue of _____
Name _____
Address _____
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# AUTO TIRES

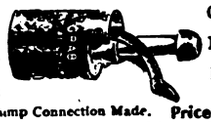
Prices subject to prior sale

| | | | |
|---|---|---|---|
| 28x3 | $14.50 | 30x4 | $26.50 |
| 30x3 | 15.00 | 32x4 | 28.75 |
| 30x3½ | 21.50 | 34x4 | 30.75 |
| 32x3½ | 23.00 | 36x4 | 31.50 |
| 34x3½ | 23.50 | 34x4½ | 36.75 |

These are Imperial 1910 tires, all brand new stock and are the greatest bargain we have ever been able to offer. Our terms are cash with order or C. O. D. When cash in full is sent we allow a discount of 5%. On C. O. D. shipments we require a deposit sufficient to cover express charges one way. You take no risk, for we agree to refund the purchase price if the tires are not satisfactory and you return them to us unused.

FACTORY AUTO SUPPLY CO.
1229 Michigan Ave. Chicago, Ill.

**Locomobile Cars for 1911**
Complete information furnished on request.
The Locomobile Company
BRIDGEPORT, CONN.

**"GRAB" Pump Connection**
Clamps on No Screwing Stays Tight

Cannot Loosen Fits any Valve Instantaneous
No Better Pump Connection Made. Price each 25c
The Motor Car Equipment Co., 55 A Warren St., New York

**AJAX** EXTRA HEAVY NON-SKID TIRES
The ONLY non-skid tire guaranteed for 5,000 miles or 200 days' service.
AJAX-GRIEB RUBBER COMPANY
General Offices: 1777 Broadway, New York City
Factories: Trenton, N. J. Branches in Principal Cities

**STAPLEY** TIRE PUMP
Made by Bridgeport Brass Co.
BRIDGEPORT BRASS CO.,
BRIDGEPORT, CONN.

**STAMPINGS**
Hub Flanges, Hub Caps, Ball Cups and Retainers, Thrust Discs, Clutch Discs, Sectors, Muffler Discs, Etc., Etc.
Prompt Delivery—Right Prices
THE BOSSERT COMPANY
UTICA, N. Y.

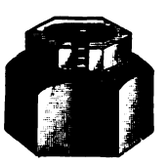
**Standard Bearings**
STAND THE TEST
Because they run better, wear better, and are better in every respect.
Standard Roller Bearing Company
PHILADELPHIA, PENNSYLVANIA.

**Aluminum Bodies**
THE SPRINGFIELD TOP
(Pat. 1895)
SPRINGFIELD METAL BODY COMPANY
366 Birnie Avenue, Springfield, Mass.

**The Warner Auto Meter**
is by far the cheapest if you figure the price by miles of travel or years of service. You CAN afford Quality and care for the trouble proof satisfaction which goes with it.
WARNER INSTRUMENT CO.
Wheeler Ave. BELOIT, WIS.

**NAME PLATES**
Only Good Ones
THE CHANDLER CO., Springfield, Mass.

**Columbia**
The "perfect score" car. The car of a thousand excellencies. In design, build, and exclusive features without a serious rival.
COLUMBIA MOTOR CAR COMPANY
Offices and Works, Hartford, Conn.

Do You Know All You Ought to Know About
**COLUMBIA LOCK NUTS?**

ORIGINAL
They are a distinct contribution to safe automobile construction.
Used with entire success by many of the leading makers and most of the principal railroads.
*We have an interesting booklet which is yours for the asking.*

IMPROVED
COLUMBIA NUT AND BOLT CO., Inc., Bridgeport, Conn.

**WANTS AND FOR SALE**
15 cents per line of seven words, cash with order. In capitals, 25 cents per line.

FOR SALE—Pullman Special, 40 horsepower, 121-inch wheel base, six passenger demi-tonneau, run about 1,000 miles; bought to order late in the season of 1909 and has been stored all winter; special cloth lined top, two extra tires, tire cover, double brass tire irons, full lamp and tool equipment Bosch magneto, upholstered in full French hand buffed leather. Looks like new. Will sell at sacrifice. J. A. KLINE, General Manager, B. C. K. Motor Car Co., York, Pa.

SOME BARGAINS—All cars in first-class running shape; also tires in good repair: 1907 seven-passenger White, cost $3,750, Model G, glass front, price $700; also 1907 limousine, price $1,400; 1909 five-passenger limousine touring car, $700; 1903 Model C White, price $150. Address F. P., Griswold House, Detroit, Mich.

**The MOTT WHEEL WORKS**
Utica, N. Y.
**Axles, Hubs and Rims**
ABBOTT & BAILEY, Sales Agents
Majestic Building, Detroit

**KOEHLER "40"**

$1650 TORPEDO
H. J. KOEHLER CO., 1780 Broadway, New York

**Stearns** The Ultimate Car
THE F. B. STEARNS CO., Cleveland, O.
*Licensed under Selden Patent*
The White Line Radiator Belongs to the Stearns.

**GILBERT** Motor Car Accessories
CATALOGUE ON REQUEST
GILBERT MFG. COMPANY
New Haven, Conn.

Running Board Steel Step **HANGERS**
THE CROSBY COMPANY, Buffalo, N.Y.

It is not possible for any chain to be better than
**BALDWIN CHAINS**
BALDWIN CHAIN & MFG. CO.,
Worcester, Mass.


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# AGAIN!

# National

# WINS

**First—Second—Fourth**

## Two Hundred Mile Open Race

**Open to Chassis up to 600 cu. in. Displacement**

**At Indianapolis Speedway, September 5th**

First, National, J. Aitken, Driver.

**167 Minutes 54 Seconds, Averaging 71.4 Miles Per Hour**

Second, National, Al. Livingston, Driver.

Fourth, National, Arthur Greiner, Driver.

This was the feature race of the meet. In this event there were three Nationals entered against nine other cars. Four cars finished, three of them being Nationals.

## First—WINS—Second

## Remy Grand Brassard and Trophy

**for Stock Chassis 450 cu. in. and under**

**100 MILES WITHOUT A STOP at Indianapolis, September 3**

**The Biggest Chassis Race of the Meet**

First, National 40, Howard Wilcox, Driver.

**TIME 83 MINUTES 3.56 SECONDS**

Second, National 40, Chas. Merz, Driver.

**The only two National 40 entered in this Race.**

The unequaled record of the three Nationals in the 200-mile race and the remarkable one-two finish without a stop in the 100-mile Remy Brassard race were the sensations of the meeting and the combined performances are without a parallel in motor racing history.

These victories climaxed the clean-up made by Nationals. During the two days Nationals won 6 firsts, 4 seconds, 6 thirds, including—

FIRST in the 5-mile 301-450 Stock Chassis.
FIRST in the 5-mile 450-600 Stock Chassis on Saturday.
FIRST in the 5-mile 301-450 Stock Chassis.
FIRST in the 5-mile 450-600 Stock Chassis on Monday.

---

**At ELGIN August 26th National "40" WON the**

**ILLINOIS TROPHY—Averaging 60.6 Miles Per Hour for 203 Miles**

**WITHOUT A STOP—A Record Never Before Equaled**

**At ELGIN August 27th National "40" WON**

**Second and Third in Elgin National Trophy Race—Averaging 60.4 Miles Per Hour for 305 Miles**

**TWO NATIONALS STARTED, TWO NATIONALS FINISHED**

**The Fastest, Classiest, Most Powerful and Reliable Car in the World for $2,500**

## NATIONAL MOTOR VEHICLE CO., 1007 E. 22nd St., Indianapolis, Ind.

Licensed under Selden patent.

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# Indianapolis Speedway Meet
# A BOSCH TRIUMPH

## Bosch-Equipped Cars

**CAPTURE**

**The Speedway Helmet**
**The Remy Brassard and Trophy**
**The 100-Mile Free-for-All**
**The 50-Mile Free-for-All**
**The rich 200-Mile Free-for-All**
**and 10 other races**

**15 OF 18 GREAT RACES WON BY CARS USING BOSCH MAGNETOS**

## BOSCH MAGNETO COMPANY

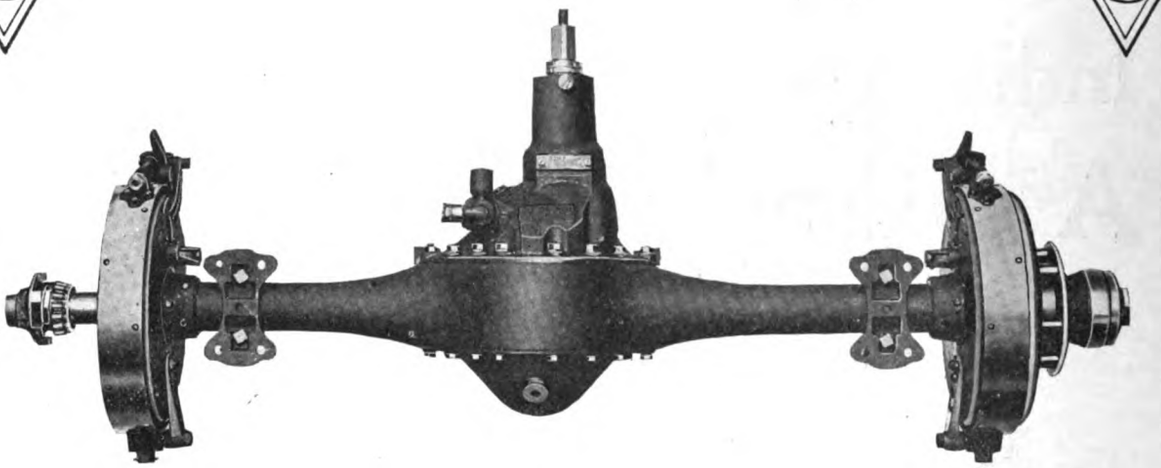
**223-225 West 46th Street** **New York**

Chicago Branch:
119-121 East 24th Street

San Francisco Branch:
357 Van Ness Avenue

Detroit Branch:
878 Woodward Avenue


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# Timken-Detroit Axle Talks No. 2

Our last advertisement told about some of the advantages of Timken-Detroit Axles for Pleasure Cars with special reference to two popular sizes —No. 566 Rear Axle and No. 126 Front Axle.

The same axles are illustrated today. The more you study them the more you will find in them to admire and appreciate.

We emphasize two important and distinctive features which must challenge your attention—because they are the fundamental reasons back of the widespread popularity of these styles—

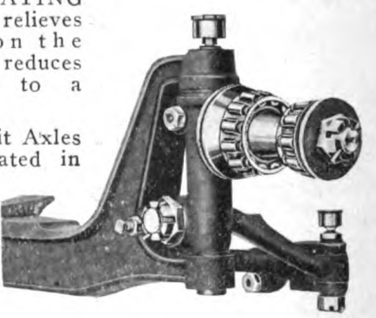
First, the PRESSED STEEL HOUSING—

Second, TIMKEN ADJUSTABLE TAPERED ROLLER BEARINGS.

Note the light, graceful, strong construction of No. 566 Rear Axle. This is made possible by the PRESSED STEEL HOUSING made in one continuous piece from end to end. Observe the gradual increase in the sectional diameter of the housing as it approaches the center. This construction gives greatest strength where greatest strength is required, and is much superior to the old fashioned method of using a center casting with tubing rivetted to either end of a form of construction that brings the weakest point where greatest strength is required.

The PRESSED STEEL HOUSING is provided with an inspection plate at the back fitted with **oil-tight** joints. Thus the complete interior mechanism is accessible instantly. The entire driving mechanism is contained in a single unit that can be removed without disturbing the car. The car will still stand on its TIMKEN ROLLER BEARINGS.

The Spring Seats of this axle are equipped with OSCILLATING JOINTS. This relieves the strain on the springs and reduces body racking to a minimum.



Timken-Detroit Axles are often imitated in appearance—but never in Quality. And there's this point to remember: even were our Quality equalled other axles would still lack the basic and vital feature that has given Timken-Detroit Axles their supremacy and prestige—TIMKEN TAPERED ADJUSTABLE ROLLER BEARINGS.

If your axle requirements are not fully covered we would suggest the advisability of immediate correspondence.



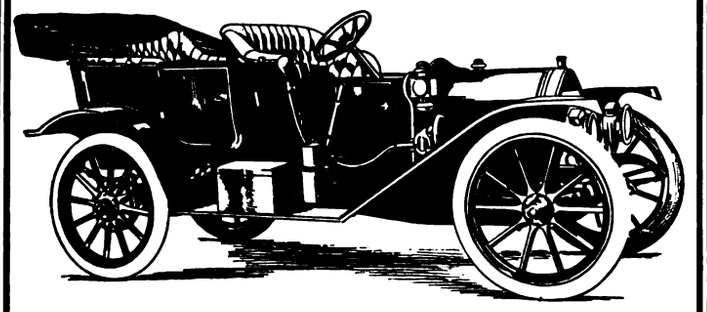
## THE TIMKEN-DETROIT AXLE CO.

**Detroit, Mich.**

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# LION "40"

"RUNS LIKE SIXTY"



Five Passenger Touring Car, $1,700.

## The Greatest Car of the Greatest Century

Some desirable territory open to dealers making immediate application.

## LION MOTOR SALES CO.

General Agents for United States and Canada.

650 Woodward Avenue Detroit, Mich.

# COLE 30-1911

The Car You'll Be Proud To Own

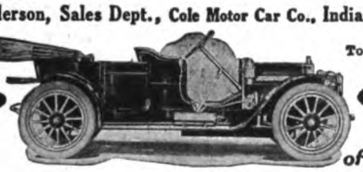
The same mechanical perfection and graceful, symmetrical lines found in the new popular models of the highest priced cars are embodied in our

"Fore-Dore" 30-36 H. P. Touring Car, $1,650

Compare it with any $2,500 car—we are willing to abide by your judgment.

C. P. Henderson, Sales Dept., Cole Motor Car Co., Indianapolis, Ind.

Palace Touring Car, 30-36 H. P. $1,600



Cole Flyer Torpedo Roadster, 30 H. P. $1,500

*Write Today for Booklet* *and name of Local Dealer*

## FRANKLIN—1911

Utmost satisfaction in the use of a motor car demands one selected to suit the individual requirements and taste.

Each Franklin is designed to meet a definite demand, and each combines everything that gives grace and distinction of design, efficiency and dependability of operation.

Franklins for 1911 are made in four chassis sizes and horse powers. All are of the same high quality. Two chassis have six-cylinder motors, and two have four-cylinder motors, with eleven styles of open and closed bodies.

H H FRANKLIN MANUFACTURING COMPANY Syracuse N Y
Licensed under Selden Patent
FRANKLIN AUTOMOBILE COMPANY Syracuse N Y
Sole Distributor

BECKER St B QUALITY — BECKER St B UNIFORMITY

# Becker Steel Company of America

90 West Street New York, N. Y.

## Beg to Announce

They are Sales Agents in the United States for Stahlwerk Becker, A. G. Willich, Germany

MANUFACTURERS OF

## HIGH GRADE STEELS

AND

## TOOL STEEL TUBING

and carry a full stock of the various products made by Stahlwerk Becker, from which they are Prepared to Furnish Promptly All Types and Grades of Alloy Steels Including Chrome Nickel, Silico Manganese, Chrome Vanadium, 5% and 3½% Nickel Steels, Also Improved High Speed Steel.

ALL OF BECKER PRODUCTS ARE MADE BY THE PAUL GIROD PROCESS OF ELECTRIC MELTING WHICH IS ACKNOWLEDGED TO BE THE MOST IMPROVED METHOD OF MAKING HIGH GRADE STEELS.

Becker Steel Company of America

Sales Agents in the United States for Stahlwerk Becker, Willich, Germany

90 West Street New York, N. Y.

BECKER St B QUALITY — BECKER St B UNIFORMITY


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## Ball-Bearing Crankshafts

New York—Editor Motor Age—In a recent issue of Motor Age, Fred Sombert has asked for information regarding the use of ball bearings on the crankshaft. Motor Age, in reply to this query, sums up the situation just about as it exists, but there was one point which was not very clearly brought out, but which has an important bearing on the facts. Motor Age states that ball bearings are at present giving success on some makes of cars, whereas other manufacturers after using them for several seasons have discarded them. I do not know of a single case where an American manufacturer who has used ball bearings on the crankshaft ever discontinued their use. Some three or four years ago two prominent foreign manufacturers attempted to use ball bearings on the crankshaft, but the bearings were small, the crankshaft not properly strengthened, and the experiment was a failure and hastily abandoned. The American designers who adopted ball-bearing crankshafts employed bearings with the proper factor of safety and a strengthened crankshaft, which anyone who will give the subject thought certainly will realize is necessary, with the result that the ball bearings of the crankshaft are just as successful as ball bearings in the transmission and other parts of the car. The ball-bearing crankshaft has been a feature of the Lozier car for over two years past and we do not recall an instance of a motor having given a moment's trouble to a single user. Through this feature of construction the fact that the lubrication of crankshaft ball bearings is reduced to a matter of great simplicity and by the fact that it never is necessary to adjust the crankshaft bearing during the season and granting the durability of the bearing there can, in our opinion, be no doubt as to the desirability of this style of bearing, aside from its greater cost. We believe that our experience is the experience of other manufacturers using ball bearing crankshafts, and we long ago placed our verdict on record with the prediction that no car claiming to be of high grade and quality can in the future be successfully marketed with a plain bearing motor, and every year's experience with this construction only serves to confirm us in our belief in the ultimate fulfillment of this prediction.—C. A. Emise, Lozier Motor Car Co.


The Dependable Quality of the

F & S

ANNULAR BALL BEARINGS

is emphasized by the following recent performances.

Elgin National Trophy Won on a

A NAME THAT STANDS FOR SOMETHING

LOZIER

LICENSED UNDER THE SELDEN PATENT

Elgin, Ill., August 27.—Ralph Mulford, a blonde youth, driving a car that never faltered, to-day won the greatest road race ever seen in the West. He drove a 50-horsepower Lozier 305.03 miles (36 laps of 8½ miles) in 4 hours 52 minutes 29.85 seconds, or at an average speed of 62.5 miles an hour. He ran 203 miles without a stop, and halted then only because he was under a misapprehension as to one of his tires. The tire proved to be all right, but he seized the opportunity to take gasoline and water and was off again after a minute's delay. His winning margin was 11:41.—"*Brooklyn Daily Eagle.*"

To-day's race was officially designated as the 1910 national stock chassis road race by Chairman S. M. Butler of the contest board of the American Automobile Association, and ten automobile manufacturers or agents entered a total of thirteen cars for the race. The long grind, which began at 10 o'clock, and did not finish until nearly 4 o'clock in the afternoon, eliminated eight cars.—"*The Sun.*" New York.

The bearings of the crank shaft, cam shafts, pump shaft, magneto shaft, as well as all shafts in the transmission and differential, are mounted on imported F & S annular ball bearings, it being asserted that the two Lozier models for 1911 are fitted with more bearings (28) of this type than any car made. Even the clutch, which has 31 all-steel disks running in an oil-tight dust-proof case, is mounted on ball bearings. The universal use of ball bearings in the motor renders the splash system of oiling most effective.—"*North American,*" Phila.

Elgin, Ill., August 26.—Slender, youthful Edward A. Hearne is the hero of the crowds to-night in this city. Hearne is a wealthy Chicagoan, whose first road racing was done in the Automobile Club of America's light car event at Savannah in 1908. His next race was the Vanderbilt Cup last fall. To-day he started in his third event on the road, piloting a tiny Benz to victory in the 135-mile race for the Fox River trophy. His time was 2 hours 30 minutes 40 seconds, an average speed of slightly more than 54 miles an hour for the little ball-bearing German machine, which had the smallest cylinder bore in the race.—"*The Sun,*" New York.

J. S. BRETZ COMPANY

Sole Importers

TIMES BUILDING, NEW YORK


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# HOMO

More Power

Less Gasoline

Steady Pull




More Speed

Less Heat

Less Vibration

**MAKES A FOUR CYLINDER RUN LIKE A SIX CYLINDER ON THE GASOLINE CONSUMED BY A TWO CYLINDER**

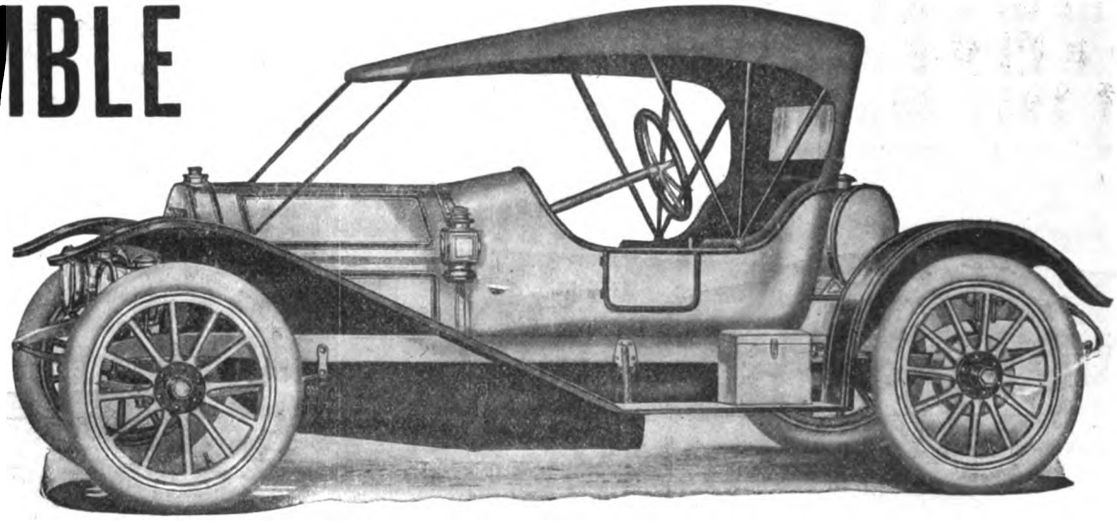
**THE GREATEST SOIENTIFIO ADVANOE THE GASOLINE MOTOR WORLD HAS EVER KNOWN**
**WRITE FOR DESCRIPTIVE MATTER NOW**

**THE HOMO OOMPANY OF AMERICA, Montgomery Street, Jersey City, N. J.**

# DeTAMBLE

**Six Distinct Models**

**Model "G" $1000 1911 Special**



By comparison it has been proven beyond all question of doubt that the De Tamble product surpasses anything that has ever been put on the market or is to be had today at the same price, is equal to many—**and even superior** to some carrying a decidedly higher list.

Due to the fact that we make our entire power plant, and every working part in our own factory and under our personal supervision, it is possible for us to give with each car a dependable guarantee for a period of one year.

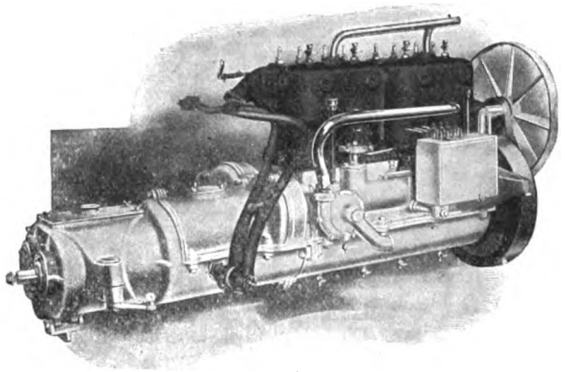
Designed by experts, they are cars that will not be relegated to the scrap pile in a year's time, but are in demand by those who desire to own and drive a car of style that one year's time will not eliminate.

For a more detailed description or for terms on open territory, write or wire

**THE DeTAMBLE MOTORS CO., Anderson, Ind.**


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# Stevens-Duryea



The Model X Motor

The design of transmission, rear axle and driven members of the Model "X" chassis, allows the motor to be operated well within its power—the maximum results with minimum wear of the moving parts. The motor that is never overloaded when speeding or ascending the steepest grade.

A DEMONSTRATION IS CONVINCING.

Its mechanical detail fully described in our catalog. Let us mail you one.

STEVENS-DURYEA COMPANY
CHICOPEE FALLS-MASS.
LICENSED UNDER SELDEN PATENT

## Immediate Deliveries of 1911 Models

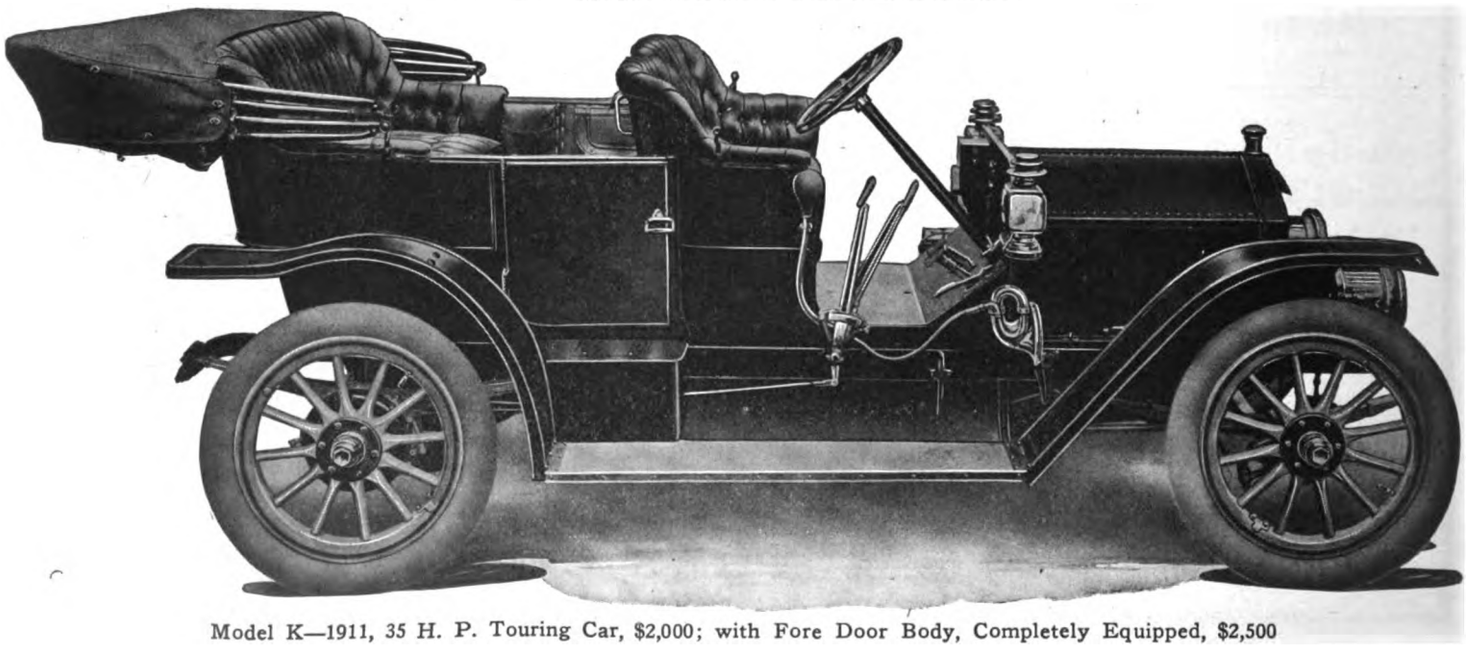
Write for advance 1911 printed matter. (See Motor World of August 11 for description of 1911 models).

# Pullman AUTOMOBILES

## PULLMAN MOTOR CAR COMPANY

**York, Pa.**

Licensed under Selden patent.



Model K—1911, 35 H. P. Touring Car, $2,000; with Fore Door Body, Completely Equipped, $2,500


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Say

# "Solar Lamps or None"

## to the Manufacturer

You'll get the Solars when he realizes that you know what lamp values really are.

Experience has taught car makers that Solar Lamps are the only ones whose presence would not cheapen their cars — that a quality car must have quality lamps. An undependable, unreliable lamp will almost destroy the pleasure of riding at night.



And while

**Solar Lamps**

cost the manufacturer a little more, they mean a great deal more to you in safety, confidence and satisfaction.

There is a Solar for every lighting need of the motorist, including many special-purpose lamps. Write for our interesting free catalog.

Kenosha, Wis. **Badger Brass Mfg. Co** New York City

(91)



Mosler

# Spit Fire

THE PLUG WITH THE DEEPEST CHAMBER

## Leads the World

READ **NOTICE!** READ

Our SPIT-FIRE Plugs are for sale by all legitimate dealers and jobbers.

If you cannot get a delivery— THERE'S A REASON!

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WE CAN SHIP ON TWENTY-FOUR HOURS' NOTICE

Dealers and jobbers beware! We protect our trade mark

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VAN WAGNER DIE CASTINGS

ACCURATE—Guaranteed to the 1-1000 of an inch.
FLAWLESS—Made by our patented Vacuum Process.
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Send us your prints for estimates.

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## The H. F. M. Oil Filtering AND LUBRICATING SYSTEM

is the first radical and distinct improvement in automobile lubrication since the industry began.

AUTOMATIO OIL FILTER
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Provide Olean, Cool Oil All the Time.

Write for convincing proofs.

THE AL-TON MOTOR ACCESSORY CO.
E. South Street Akron, Ohio



# FRAME DELIVERIES ASSURED

No thinking automobile manufacturer will place his next year's frame business without first making sure of the frame maker's ability to deliver. To satisfy everyone on this point, once and for all, our Mr. A. O. Smith designed and had built, during the past year, the largest and best equipped pressed steel automobile frame plant in the world. It is 1025 feet x 286 feet, absolutely fire-proof, with a press equipment which easily turns out over 1000 sets of frame parts per day. This enormous capacity is amply sufficient to take care of all the frame business in the United States and gives our customers positive assurance of prompt and satisfactory service.

WE SOLICIT YOUR BLUE PRINTS FOR QUOTATIONS

**A. O. SMITH COMPANY, Milwaukee**


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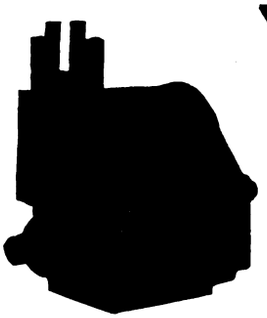
# Every Turn and Piece

of the magneto needs the most careful and skillful workmanship if the device is to be permanently and reliably efficient in service.

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requires painstaking thoroughness, such as is provided in the

# Pittsfield



## "Arc Flame System" Magneto

High tension, with stationary, removable coil. No moving wire on the armature. Each spark is followed by an arc flame. This arc flame will ignite a much weaker mixture than with the spark produced by the usual coil ignition. A variation of 45 degrees is allowed on the magneto shaft, which means 45 degrees in the crank shaft for a four cylinder, four cycle motor, as the magneto runs at crank shaft speed.

The retarded spark is just as efficient as the advanced spark, making it easy to start the motor with a quarter turn of the crank, with the timing lever fully retarded.

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# Equip Your Automobile with Demountable Rims

is to be always ready to quickly replace a punctured tire, but if the spare tire is not inflated to the proper pressure and it must be pumped up after the car is let down on it, most of the advantages of Demountable Rims are lost. To avoid this

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# Schrader Universal Tire Pressure Gauge

in your pocket and test the pressure in your spare tire at regular intervals and always before going on a long run.

(Trade Mark Registered in U. S. Patent Office)




(Patented March, 1898—Other Patents Pending)

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**Price $1.00 Each**

**Ready for Delivery Now**

## Guaranteed Simple and Absolutely Accurate

Can be obtained from all tire manufacturers and the dealers, or

## A. SCHRADER'S SON, Inc.

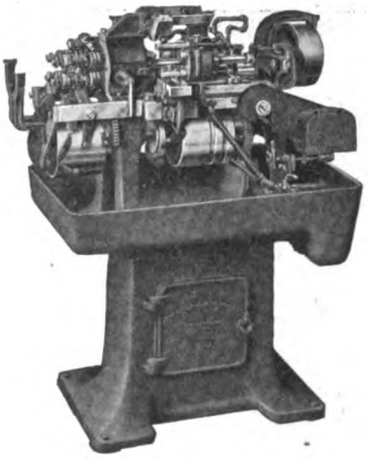
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# THE RANGE OF WORK

Years of experience with hundreds of machines daily on ordinary and unusual jobs has led to the development of the regular machine to cover a very wide range of work.

It has also caused the building and perfecting of a number of simple and compact attachments which eliminate extra operations and lower the cost of the parts.



THE
No. 51

THE NATIONAL-ACME MANUFACTURING CO.

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Warehouses, Chicago, New York.

# ON THE ACME AUTOMATIC

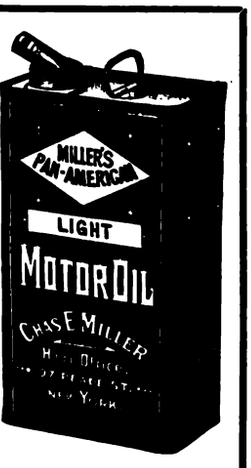
Special tooling plans have been adopted which often double an exceedingly good rate of product with the old plan.

The machine is being adapted to many new uses on screw machines with profit to the Acme users.

It ranges in capacity from minute screws to parts 2¼ inches diameter and 10½ inches long.




MILLERS PAN-AMERICAN LUBRICANTS




## MILLER'S Pan-American Motor Cylinder Oils

are refined from **the finest grade Pennsylvania Crude** and are pure, distilled, highly-filtered mineral oils. **Have a high fire test, low cold test and** not affected by climatic changes. **They are made in three grades** suitable for all types of water and air cooled **Motor Cars, Motor Boats and Motorcycles.** In order to convince you of the efficiency of these oils we are willing to make you a **special price** for an initial order, much lower than usually quoted on other high grade oils.

**WE HAVE HANDLED THIS OIL DURING THE PAST EIGHT YEARS AND DO NOT HESITATE TO RECOMMEND IT TO BE THE EQUAL OF ANY FIRST CLASS OIL ON THE MARKET.**

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**CHAS. E. MILLER,** MANUFACTURER, JOBBER, EXPORTER AND IMPORTER
Home Office, 97-99-101 Reade St., New York City

**The Largest Auto Supply House in America.**

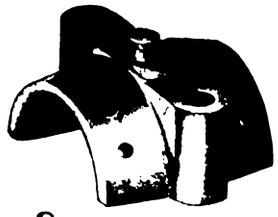
BRANCHES—Philadelphia, Boston, Cleveland, Detroit, Buffalo, Hartford, Atlanta, Brooklyn, New York City.


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# Empire Tires
## WEAR LONGEST
EMPIRE TIRE CO., Trenton, N.J.

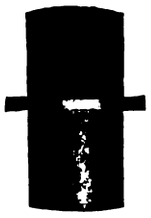
## Franklin Die-cast Bearings

We are the exclusive makers of
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If we can turn out better bearings for you at lower cost than you now pay for machine-finished bearings, won't it pay you to investigate our process?

Franklin die-cast bushings, made of special hard babbitt, will save you money and time. They wear longer and fit better. They are perfectly uniform and interchangeable. No filing, turning or grinding. Automobile manufacturers find them preferable to phosphor bronze bearings.



Let us send you booklet D, describing Franklin die-cast bearings, how they are made and the metal that goes into them.

FRANKLIN MANUFACTURING COMPANY
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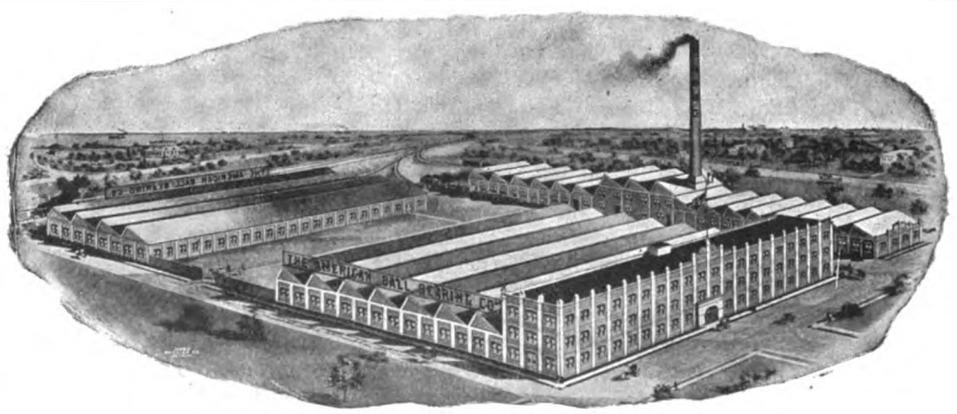
## WETHERILL FINISHED CASTINGS

¶ Die cast from Parson's white brass make the finest kind of engine bearings.

¶ Absolutely accurate and every one interchangeable.

¶ We are now making 25,000 bearings per day, and increasing output as rapidly as possible. A case where quality is recognized and put to use.

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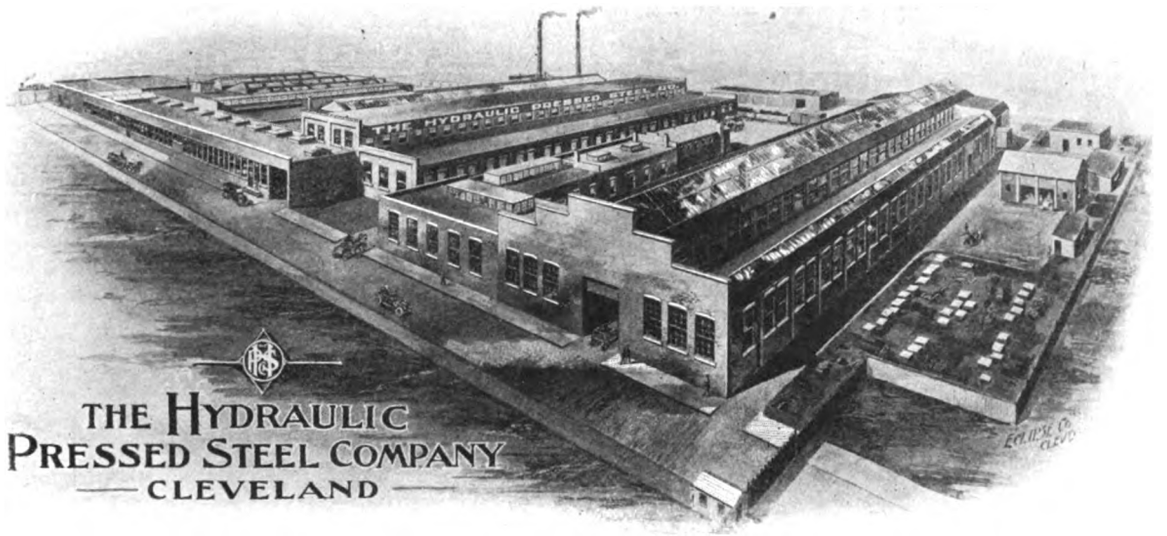


THE OUTPUT of complete Front and Rear Automobile Axles of this plant exceeds the capacity of all competition combined.

## The American Ball-Bearing Company
L. S. & M. S. Ry. and Edgwater Park
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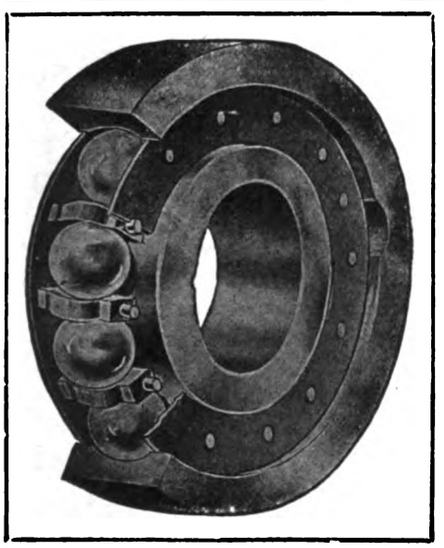

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R. B. McMULLEN, Gen'l Sales Agent, Chicago, Ill.

**The Pioneers to Employ 92% of Balls in the Raceway**



# SCHAFER
# Ball Bearings
## Fear No Comparison

**RELIABILITY** is the first essential quality of a ball bearing in use under the most extreme and unusual conditions and to insure this they must possess Strength. SCHAFER BEARINGS carry greater loads than any other known make.

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**The Royal Equipment Co.**

Manufacturers of

TRADE MARK *Raybestos*

**BRAKE LINING**

and

**The Raymond and Duplex Brake**

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**STEERING GEARS**
**CONTROL LEVERS**
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PROMPT DELIVERY

**CENTAUR MOTOR COMPANY**
510 Majestic Building DETROIT

**Cylinder Castings**

that are

**Absolutely Dependable**

**Experience, resources and a fixed determination to produce only the best are responsible for the selection of our cylinders, pistons, etc., by those makers who know what quality is and where to get it.**

HOW ABOUT YOUR CONTRACT?

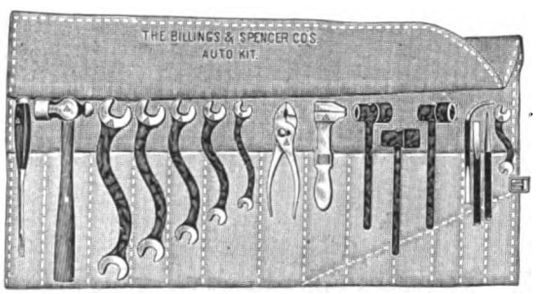
THE MANUFACTURERS FOUNDRY CO. Waterbury Conn.




**Cramp — Metals**

**The B & S Tool Kit**

Every tool a steel drop-forging, a handy and popular selection. No better guarantee than the fact that each tool is made by




New Catalog

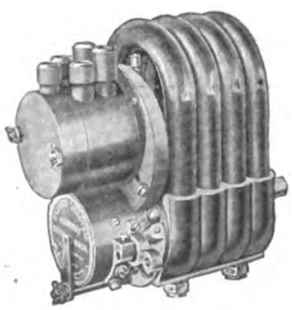
**THE BILLINGS & SPENCER CO., Hartfo d, Conn.**

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**Radiators, Hoods, Fenders, Sheet Metal Parts of All Kinds**

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General Offices, Detroit, Mich. Factories, Detroit and Newark, N. J.

**Heinze High Tension Magneto**



**Construction**—Mechanically unequalled.

**Durability**—Greater than the life of the car.

**Efficiency**—Proven by the users.

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25 H. P. PLANETARY TRANSMISSION
Showing Both Cone and Disc Type Clutch.

**Steering Gears**
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Regal "30"

"The Ideal Car for all Purposes"

The only $1250 car with a record of three years of success behind it

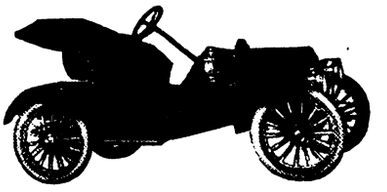
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Runabout, Baby Tonneau, Touring Car, Coupe

Greatest Automobile Value in America

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Fully assembled and completely equipped as shown at above price.

Sold exclusively through dealers.

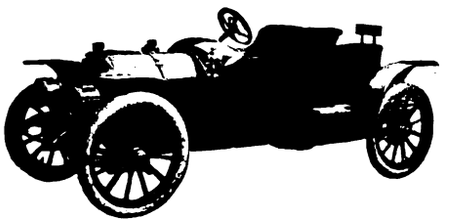
We want good live dealers; those who believe in low price, economical cars and can sell them.

It will pay the wide awake dealer to get in touch with us.

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MERCER TOURING CAR TOY TONNEAU SPEEDSTER

Each $2150

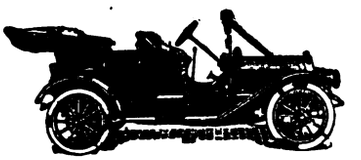


Style, Luxury, Quality, Strength, Speed.

Made Right and Stays Right

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$1,600 Cartercar

Model "L," 4 cylinder, 30-35 H.P., 110 inch wheel base, 5 passenger, Friction Transmission, Chain-in-Oil Drive, any number of speeds, will climb a 50% grade with load, including magneto, gas lamps, generator, horn, mats, tools, jack, etc. $1,600.

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Write for 1910 catalog.

CARTERCAR CO.

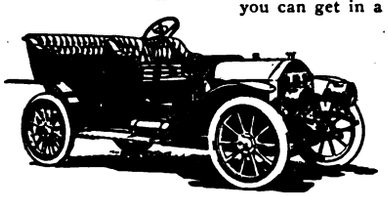
Pontiac, Mich.

Licensed Under Selden Patent.

Pierce-Racine

The Car with a Famous Engine

You will have to look to the high priced American and foreign cars for the same value you can get in a Pierce-Racine at— $1750



If you were to pay $4,000 for a car you could not get a more satisfactory motor or an easier running car.

Send for catalog today.

PIERCE MOTOR COMPANY

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The Inter-State "40" $1750

The Maximum in Speed, Comfort, Reliability and Value

4-Cylinder, 40 H.P., 118-inch Wheelbase, 34x4-inch Tires, U. & H. Imported Magneto, Double Ignition System, Multiple Disc Cork Insert Clutch of improved design, Three-quarter Elliptic Rear Springs and many other features found only in the higher priced cars.

Our proposition is interesting to all dealers. Compare our specifications with any high priced car.

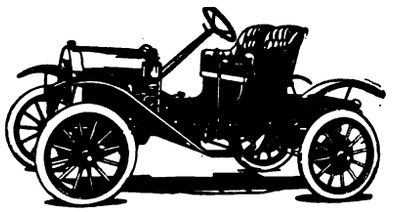
INTER-STATE AUTOMOBILE CO. (28) Muncie, Ind.

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EVERYMAN'S CAR

Seven Models

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The BRUSH $485.00

BRUSH RUNABOUT COMPANY

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"RAJAH" SPARK PLUGS

IGNITION ABSOLUTELY SURE

RAJAH AUTO SUPPLY COMPANY

BLOOMFIELD, NEW JERSEY, U. S. A.

(Watsessing Station, D., L. & W. R. R.)


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CORBIN

1911 ANNOUNCEMENT

Watch for it September 15th

CORBIN MOTOR VEHICLE CORPORATION
New Britain, Conn., U. S. A.
Licensed under Selden patent.

THE THOMAS FLYER is the champion endurance car of the world. Over 80 per cent. of the people who own Thomas Flyers previously owned other cars. They were in a position to appreciate automobile values. The Thomas Flyer is now their unqualified choice.

The E. R. Thomas Motor Company maintains a force of traveling experts who periodically call upon every Thomas owner and make sure that his car is in good condition. Let us send you some of the letters from our owners and some of our interesting engineering literature.

E. R. THOMAS MOTOR CO., Buffalo, N.Y.
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THE SELDEN CAR
FOR 1910

| | |
|---|---|
| 5-Passenger Touring Car | $2,000 |
| 3-Passenger Roadster | 2,000 |
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Booklet and specifications upon application.

AGENTS WANTED IN UNOCCUPIED TERRITORY.

SELDEN MOTOR VEHICLE CO.
GEO. B. SELDEN, President, - ROCHESTER, N. Y.
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K-R-I-T "The car with the invisible start."

96 in. wheel base
32 in. wheels

22½ H. P. $800

Sliding gear transmission. Multiple disc clutch. Weight, 1200 lbs.



Runabout $800.
Roadster $825.
Surrey $850.

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K-R-I-T Motor Car Company
DETROIT

Not a Car of Advertised Value,
But a Car of Intrinsic Worth.

STERLING

$1750

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ELKHART MOTOR CAR COMPANY, Elkhart, Ind.

The only car of established reputation selling at a moderate price.

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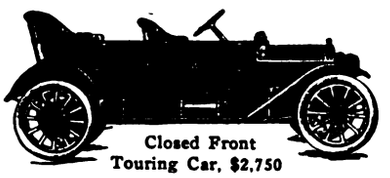
Station C, KOKOMO, IND.
Licensed under Selden Patent.

Maxwell Cars—1911 Line

| Model | Style | Cylinder | H.P. | Price |
|---|---|---|---|---|
| E. A. | Touring Car | 4 | 30 | $1600 fob |
| G. A. | Touring Car | 4 | 30 | 1600 fob |
| G. A. | Roadster | 4 | 30 | 1600 fob |
| E-11 | Touring Car | 4 | 30 | 1500 fob |
| G-11 | Touring Car | 4 | 30 | 1575 fob |
| I | Touring Car | 4 | 25 | 1100 fob |
| Q-11 | Runabout | 4 | 22 | 900 fob |
| Q-3-11 | Touring Car | 4 | 22 | 1000 fob |
| A. B. | Runabout | 2 | 14 | 600 fob |

Maxwell-Briscoe Motor Co. Vale Street Tarrytown, N. Y.

THE MARMON
"The Easiest Riding Car in The World"



Closed Front
Touring Car, $2,750

Has won practically all the important long-distance racing events of America.

NORDYKE & MARMON CO., Indianapolis, Ind.
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## Real Radiators

made of individual square tubes so much imitated in appearance, only.

## FEDDERS RADIATORS

are just what they appear to be—genuine square tubes. Furnished with tubes "staggered" or Mercedes finish.

You See the Fedders on the Finest Cars

FEDDERS MANUFACTURING WORKS, Buffalo, N. Y.

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are assured when

## G&J TIRES

are used.

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We Sell Continental Demountable Rims.




## A Real Battery
### AT A REAL BARGAIN

We have on hand a number of 6 v. 60 amp. dry type storage batteries, built for us by one of the best known manufacturers. These batteries were built to sell at $26.00 and are worth the money, but as we have accidentally become overstocked, we offer them while they last at $12.50.

No better battery is built or sold at any price.

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### The Pioneer Motor Tires of America

FIRST—BEST

THE DIAMOND RUBBER COMPANY, Akron, Ohio

## HARDENING
### High Speed Steel Hardening a Specialty

Case Hardening, Tool Steel Hardening
Heat Treating and Annealing

BRIDGEPORT METAL TREATING CO.
Bridgeport, Conn.

## Ready for More Business

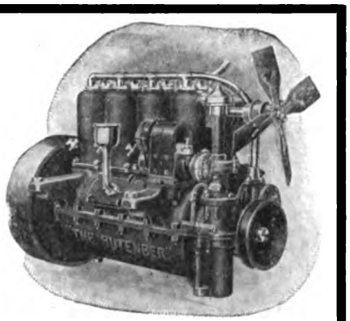
Increased facilities, new buildings, new machinery, enables us to make more motors.

NOW IS YOUR TIME

Nothing better ever made than the Rutenber.

Write for list of manufacturers using the Rutenber. Write for list of agents who say it sells the car. Write for personal testimonials, praising its power, speed, endurance and economy.

Latest improvements. Each motor carefully tested and fully guaranteed.



4 x 4; 4 1-2 x 5; 4 3-4 x 5

Marion Indiana WESTERN MOTOR COMPANY Logansport Indiana

Address all inquiries to Logansport, Indiana, Sales Department.

## THE ATWATER KENT
## UNISPARKER

"Gives Perfect Ignition"

ATWATER KENT MFG. WORKS

33 North Sixth Street PHILADELPHIA, PA.

When in Detroit stop at

## Hotel Tuller



Automobile Headquarters.
Absolutely Fireproof.
Every Room Has Bath.
Rates $1.50 up.
In the Center of the Business District Facing Beautiful Grand Circus Park.
Finest Grill Room in the City.
Our Grand Roof Garden Cafe Opens June 1st.
Vocal and Instrumental Music.

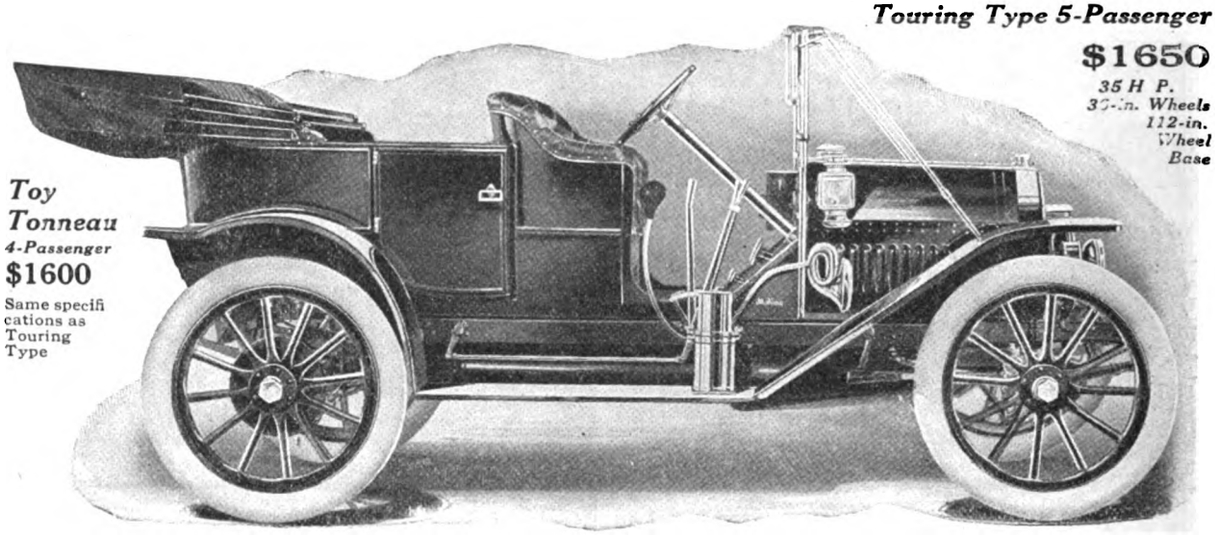
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# Are You Wondering Which Car Made The Best Record in the Glidden Tour?

Satisfy yourself by looking at the table below and noting what car outpointed every other car in this "Record Breaking Run."

*Touring Type 5-Passenger*
**$1650**
*35 H P.*
*36-in. Wheels*
*112-in. Wheel Base*



*Toy Tonneau*
*4-Passenger*
**$1600**
Same specifications as Touring Type

### *Did not Carry a Single Extra Part*

Here is positive proof that the 1911 Moline is absolutely dependable. Think of venturing on a 2850 mile trip without carrying a single extra part.

No other car but the Moline dared to do this. If you want this kind of service, then the 1911 Moline is

### Score of Eleven Cars That Finished

| No. | Name | Horse Power | Tech. Exam. | Total Penalties | Price |
|---|---|---|---|---|---|
| 100 | MOLINE | 35 | 7 | 19 | $1600 |
| 107 | Competitor | 30 | 8 | 51 | 1575 |
| 102 | MOLINE | 35 | 2 | 64 | 1600 |
| 1 | Competitor | 60 | 84 | 93 | 3500 |
| 5 | Competitor | 30 | 77 | 116 | 1500 |
| 7 | Competitor | 30 | 149 | 208 | 1525 |
| 101 | MOLINE | 35 | 3 | 481 | 1600 |
| 2 | Competitor | 40 | 86 | 806 | 2600 |
| 103 | Competitor | 40 | 660 | 2042 | 2500 |
| 10 | Competitor | 45 | 392 | 2247 | 2500 |
| 15 | Competitor | 40 | 269 | 2414 | 2250 |

### *Did Not Touch a Single Tool*

The fact that the winning ***Moline*** did not touch a single tool during the entire trip proves that this car will give the purchaser that reliable, trouble-proof satisfaction which alone is necessary to make motoring the most enjoyable pleasure in the world.

## The Car For You to Buy

It is the best for you because it has shown itself able to stand up under the severest conditions. A car that can endure the gruelling tests of this remarkable Glidden Trip and come out of it with a record that wins, is the car that you can depend upon to carry you wherever you want to go.

## The Car For Dealers To Sell

Our Glidden Tour record has set everyone to talking about the ***1911 Moline.*** Everyone wants to see it and seeing it they will buy. Some desirable territory is still open for dealers who write quickly for terms and allotment for 1911 trade. There is money in selling a car that wins.

## Send for Our 1911 Catalog No. 61

It will give you the technical description of all the ***Moline's*** fine equipment and perfect mechanism. You will be convinced of the truth of our claim that you can pay more for other cars but you cannot get better value than in the ***1911 Moline.***

**Moline Automobile Co.** Licensed Under Selden Patent **61 Root St., East Moline, Ill.**

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*World's 24-hour race record—1253 miles—held by 30-60 h. p. Stearns*

# *Stearns*—A Synonym for Splendid Touring Ability

To tour comfortably, safely and at any speed desired, means traveling in a well-proportioned, reliable, powerful car. It means a machine able to carry its maximum load with comfort and without straining. It means a car with wheel-base long enough and springs flexible enough to smooth out the roughest country roads.

It is in these qualities that the Stearns excels, for from the first it has been built to provide a perfect car for touring purposes—and that means an ideal car for *any* service, no matter how severe.

Only in a car of the size, power and ability of the Stearns will you find a machine answering all your requirements. Only in a car of the quality of the Stearns will you find the durability, sturdiness and long life that insure the owner against worries, cares and uncertainties.

The Stearns is purchased to keep, not to be turned in at the end of the season. It is built to last and give perfect service for years. That is why Stearns cars many years old are running so satisfactorily today. Chance and guesswork are eliminated in the Stearns from start to finish. The car is an absolutely standardized product.

*30-60 h. p. touring car - $4,600.00 - 15-30 h. p. Touring car - $3,200.00*
*(Vestibule or open touring body optional)*

30-60 H. P. Model Shaft or Chain Drive

## The F. B. Stearns Company

*(Licensed under Selden Patent)*
CLEVELAND, OHIO

**Pacific Coast Distributing Office,**
**1651 Van Ness Ave., San Francisco**

15-30 H. P. Model Shaft Drive

*Let us send you the latest Stearns catalog—it tells in detail the story of Stearns success. Mailed to any address upon request.*

THE WHITE LINE RADIATOR BELONGS TO THE STEARNS

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THE CONTINENTAL CAOUTCHOUC COMPANY

Take pleasure in announcing the adoption of

# Continental

## DEMOUNTABLE RIMS

AS

# REGULAR EQUIPMENT

BY THE

LOUIS J. BERGDOLL MOTOR COMPANY

OF PHILADELPHIA, PA.

The coupling of the medium-priced

1911 Bergdoll "30"

Cars and the popular CONTINENTAL DEMOUNTABLE RIMS is a natural and logical combination to give their users the fullest measure of motor car satisfaction and service. :: :: ::

The first $1500. car offering demountable rims at no extra charge.

**Continental Caoutchouc Company**

1788-90 Broadway (Branches and Agencies in 30 different cities) New York City


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The Mayo—the radiator thoroughbred

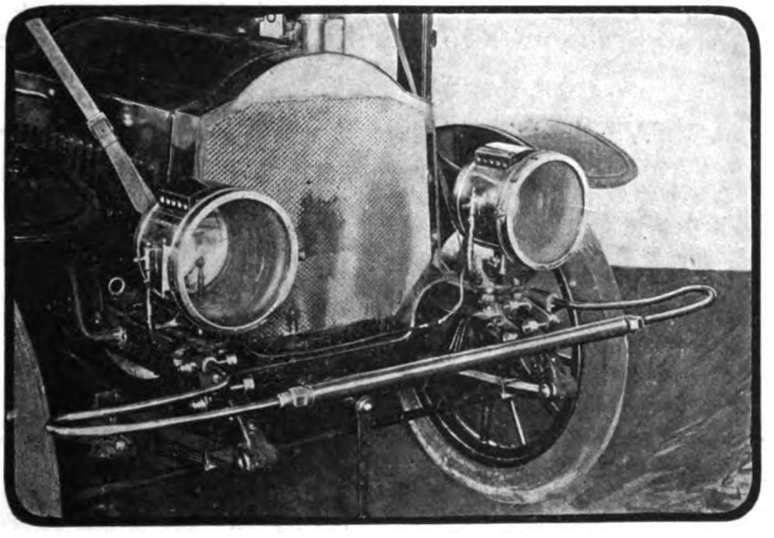
# In Front Always

—IN QUALITY
PARTICULARLY SO

Mayo Radiator Company
NEW HAVEN, CONNECTICUT

## Save Your Lamps, Radiators and Fenders

by using the



Manufactured Exclusively by the

# SAFETY Auto Bumper

Can not rattle.

Has many times the resiliency of any Bumper wherein coiled springs are used.

The eye bolts and oiling mechanism are not removed from front spring in attaching the SAFETY BUMPER.

Our patent fastener clamps rigidly on car frame and no holes are drilled in the frame.

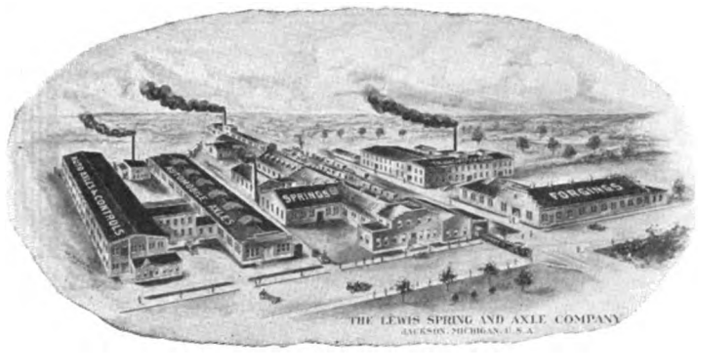
Can be put on car by anyone with a monkey-wrench.

It's position is high up on the car so as to amply protect lamps.

**ACCESSORIES MANUFACTURING COMPANY, 1926 Broadway, New York City**

Phone 2305 Columbus


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# Builders of the Country's Best Cars Buy Parts in Jackson

In Jackson there are five manufacturers who produce automobile parts.

Their names are known far and wide in America's automobile industry, chiefly because the parts they make are so exceptionally good and trustworthy.

They are well and favorably known, too, because their word on delivery is as good as their bond.

These manufacturers are:

**Lewis Spring & Axle Company**
**Hayes Wheel Company**
**American Gear & Manufacturing Company**
**Sparks-Withington Company**
**Frost Gear & Machine Company**

And they make these parts:

**Front and rear axles**
**Wheels**
**Springs**
**Transmission gear sets**
**Side control levers**
**Steering control sets**
**Pressed metal parts—hub caps, radiator fans, etc.**

The products of these Jackson manufacturers are so good and fine that they are to be found in some of the best cars built in this country.

They have won this recognition by their merit; and by the further fact that a delivery schedule is accepted to mean exactly what it specifies, and is faithfully carried out.

The manufacturers look after the quality of the goods—that is their work.

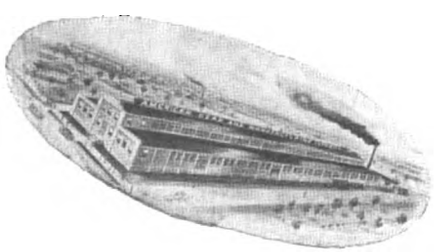
We look after deliveries—that is our work, for this company is a sales organization and as such is under obligation to each and every customer to see that the goods are delivered when wanted.

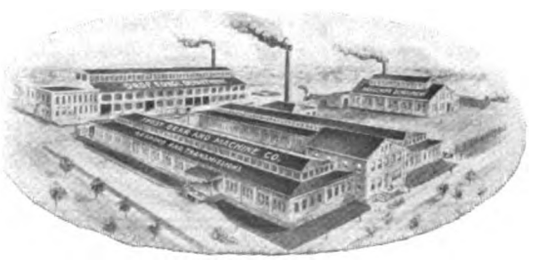
We shall be glad to send a representative to talk the matter over if you signify your desire to have him call.

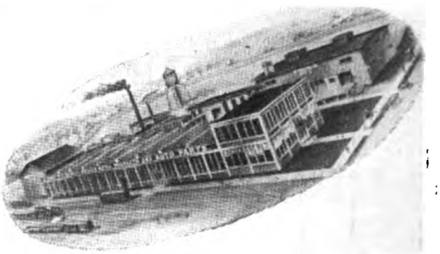
## AMERICAN DISTRIBUTING CO., 1030 S. Park St., Jackson, Michigan

**Sales Agents for**

LEWIS SPRING & AXLE CO. FROST GEAR & MACHINE CO. HAYES WHEEL CO.
SPARKS-WITHINGTON CO. AMERICAN GEAR & MANUFACTURING CO.







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# THE McCORD BALL BEARING AUTOMOBILE FAN



**Unquestionably the**

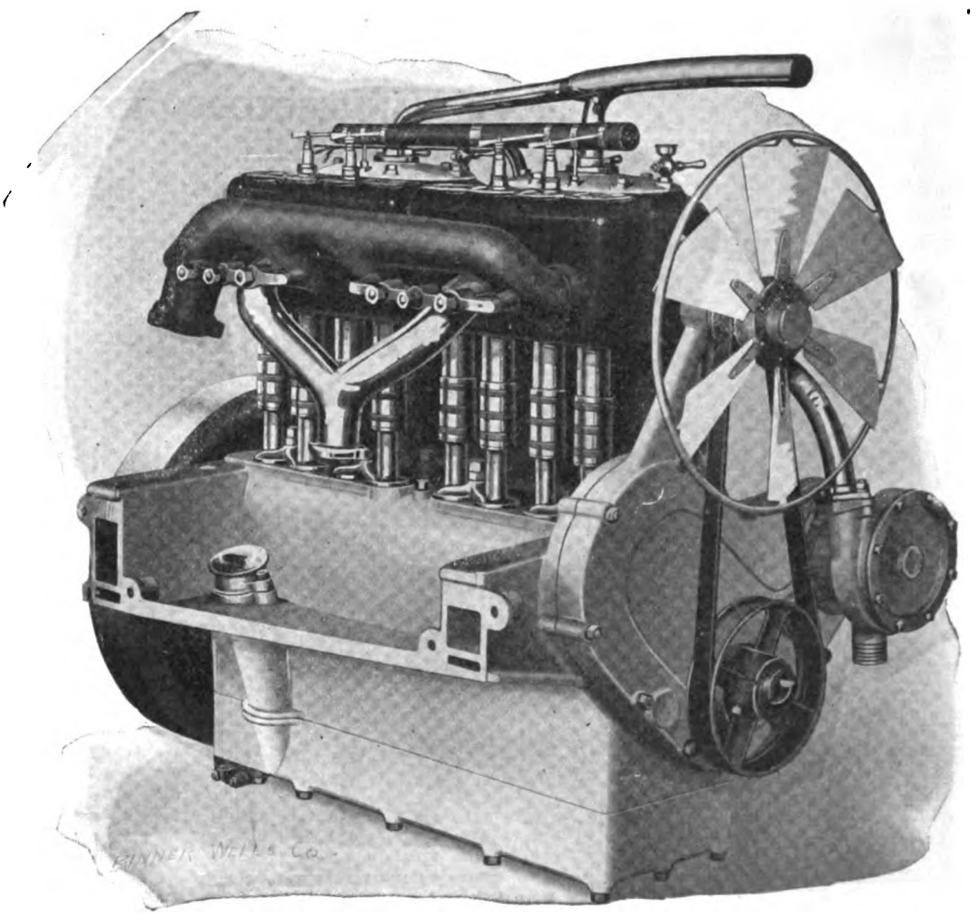
**MOST EFFICIENT**
**MOST DURABLE**
**MOST SATISFACTORY**
**MOST POPULAR**

**Fan Produced.**

## There is a Reason

**One piece reinforced or individual blades—steel or aluminum—designed and built entirely in our own factory resulting in—**

**The highest grade of construction at the lowest price.**
**Fans in quantities and when you want them.**



**YOU will see them on the up-to-date motors—are they on yours?**

## McCord Manufacturing Company

**DETROIT**

**CHICAGO NEW YORK**


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# The Dayton Motor Car Co.

**Dayton, Ohio**

place the largest individual order ever given for demountable rims. All 1911 Stoddard-Dayton and Courier cars will be equipped with

# THE STANDARD UNIVERSAL RIM

**MANUFACTURED BY**

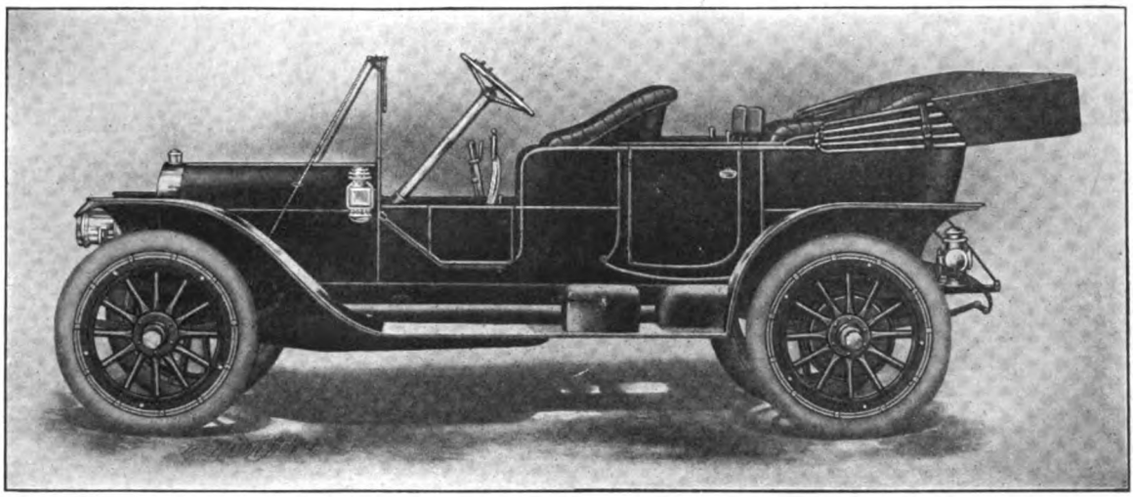
## The United Rim Company

**Akron, Ohio**

The wholesale adoption of the Standard Universal Rim by representative automobile manufacturers is the best argument in favor of its practical and desirable demountable and quick detachable features.

# FITS ALL TIRES


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1911 Model R 40 H. P. Touring Car. Price Equipped $3300.00

QUALITY Knox QUALITY

# Quality Is What You Get When You Buy a Knox

**RELIABLE MOTOR CARS MANUFACTURED BY RELIABLE MAKERS**

¶ KNOX motor cars are the result of years of experience in manufacturing high grade cars exclusively and KNOX water cooled types have many times shown the superiority of up-to-date construction ever since their introduction.

¶ KNOX types and features of construction are not copied from other makes, but are designed and manufactured in a completely equipped factory and under the supervision of a competent engineering department.

**Knox Features are Unit Power Plant, Three Point Suspension, Cylinders Made with Detachable Heads and Valves in the Head, De Dion Lubricating System, Three Plate Clutch, Straight Line Shaft Drive, Etc.**

WRITE FOR INFORMATION AND CATALOG.

## KNOX AUTOMOBILE CO., Springfield, Mass.

Licensed under Selden patent.

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# Reliance the Reliable Sparks in Water

## What Reliance Spark Plug Instructions Are:

**FIRST—Don't bother about soot.**
**SECOND—Carbon need not be considered.**
**THIRD—It is not necessary to clean them.**
**FOURTH—Water will not short-circuit them.**

¶ They are plugs which give your engine the most intense spark—without any bother. They require no attention.

¶ Reliance plugs are good plugs because the makers have banished all experimental constructions. They have their own pottery which makes porcelain for the product—a new heat-proof composition especially developed for the purpose.

¶ Reliance plugs are years ahead of the old, antiquated methods of spark plug construction. They are modern spark plugs for modern vehicles.

¶ TEST THEM for yourself. Place two plugs in a glass of water and turn on the current. The little blue blaze is there.

¶ Soot, carbon and water are harmless where the Reliance is used. They will save the battery, too.

¶ Write for our book on spark plugs. We will also send FREE an amazing little electrical novelty.

**Be sure you get Reliance plugs next time.**

**JEFFERY-DEWITT CO., 65 Butler Ave., DETROIT, MICH.**

**Manufacturers of Reliable Spark Plugs**

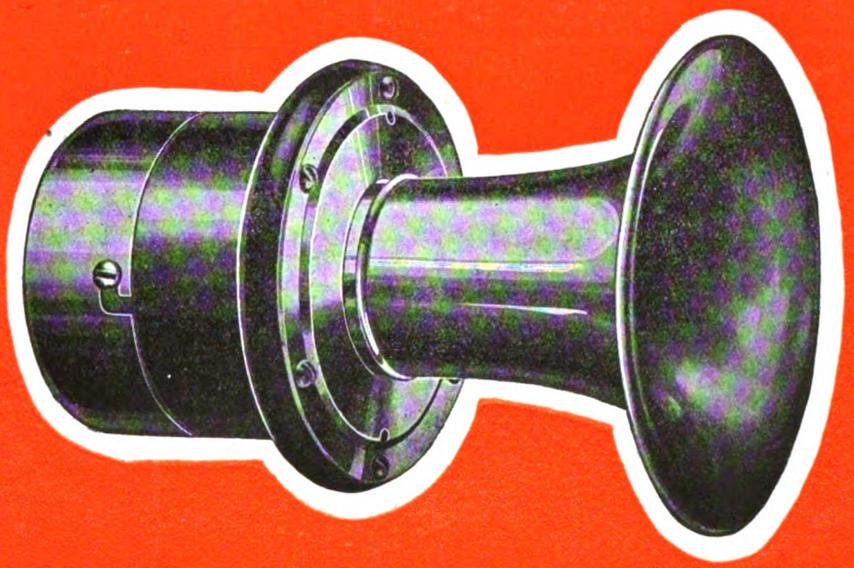




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# A NEW MONOPLEX

## TYPE M ELECTRIC HORN

$12  $12

The **MONOPLEX** Type "M" has been produced to meet the demand for a high-class electric horn of smaller size than the regular Monoplex, and which combines a forceful tone and substantial construction with a pleasing appearance and a low price.

Fitted with our improved vibrating system (which is now also supplied in our larger Monoplex), vanadium steel diaphragm and short, seamless brass projector.

*An efficient and powerful signal for the man who does not want a large horn on his car.*

IT CONSUMES LITTLE CURRENT AND MAY BE OPERATED BY SIX DRY CELLS OR AN EIGHT-VOLT STORAGE BATTERY.

Complete with push-button and cord—$12.00. Circular on request. Dealers should send for sample.

## ATWATER KENT MFG. WORKS

**33 North Sixth Street, PHILADELPHIA, PA.**


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# The AUTO-METER

## WILL BE SUPPLIED FREE ON THE

# OWEN, HAYNES and OLDS (SIX-CYLINDER)

## —and probably several other reliable makes of cars for 1911.

Many other makers who will not equip until 1912 are fitting their cars for 1911 with Auto-Meter Gears, so that connections may be made in a few minutes when the Auto-Meter is specified by their customers.

Practically every high-priced car in use is Auto-Meter equipped—watch them as they pass. The Auto-Meter is likewise found on the popular-priced car where the owner can afford its purchase.

The Auto-Meter costs from three to five times the price of other speed indicators. Yet it is far cheapest in the end, as it is practically trouble-proof, is absolutely accurate at all speeds, is steady and readable on all roads, and will **outlast a half dozen cars.**

If your favorite car is not Auto-Meter equipped, it will be wise judgment on your part to pay for it—or **pay the difference,** if you can afford the price of Quality and care for the trouble-proof satisfaction which goes with it.

## Warner Instrument Company

**1003 Wheeler Ave., BELOIT, WIS.**

**BRANCHES**

ATLANTA, 116 Edgewood Ave.
BOSTON, 925 Boylston St.
BUFFALO, 720 Main St.
CHICAGO, 2420 Michigan Ave.
CINCINNATI, 807 Main St.
CLEVELAND, 2062 Euclid Ave.
DENVER, 1518 Broadway
DETROIT, 870 Woodward Ave.
INDIANAPOLIS, 330-331 N. Illinois St.
KANSAS CITY, 1613 Grand Ave.
LOS ANGELES, 748 S. Olive St.
NEW YORK, 1902 Broadway
PHILADELPHIA, 302 N. Broad St.
PITTSBURG, 5940 Kirkwood St.
PORTLAND, ORE., 14 N. Seventh St.
SAN FRANCISCO, 36-38 Van Ness Ave.
SEATTLE, 611 E. Pike St.
ST. LOUIS, 3923 Olive St.

(91)




Model F Auto-Meter (Actual Size) Price $50

The speed indicating mechanism is the same on all models. Style, Odometer and finish only are different.



### Model K

This represents the open-face type of Auto-Meter with Warner large-figure Odometer. Season, 100,000 miles and repeat; trip, 1,000 miles and repeat. It is the most popular model and by far the best seller. Price, **$75**

Same as above, but with Chelsea Auto Clock (MODEL M). Price . . . . . **$125**

### Model O—"The Twins"




This is the same instrument as Models K and M, with large Chelsea Auto Clock.

Has the Warner large-figure Odometer. The ultimate in high-class instrument making. The ul- Price, **$145**

**Any of the above designs can be secured with 100-mile speed dial at a slight advance in price.**

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# AT YOUR SERVICE



¶Our Engineering Department is at the disposal of anyone, whether customer or not, for advice and suggestions as to the proper means of best meeting and taking care of any bearing applications.

¶We are daily making blue print lay-outs of various motor car bearing applications for foreign as well as domestic makers.

¶Ten years constant study on this line of work has given our Engineering Department data and experience of which the majority of prominent engineers avail themselves.

¶Your blue prints, sketches and data will be used for your benefit solely. Can we serve you?

## Timken Roller Bearing Co.

CANTON, OHIO


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**Regal "30"—$1250 Fully Equipped**

# THE REGAL LINE

**Fore Door and Open Styles Same Price**

THE REGAL "30" has always been a good car. Four years ago when we built the first "30" to be sold at a DEFLATED price it was considered the most wonderful buy in the automobile field.

It is today for 1911. We not only give you the most for your money from a cold dollars and cents standpoint—but when you buy a Regal "30" you get a "car with a reputation"—a car with a record—a duplicate of the world's greatest endurance car.

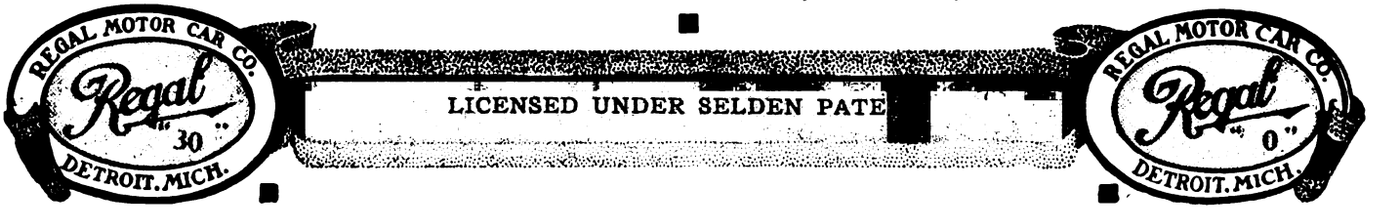
Reliability is the cornerstone of the Regal reputation.

And RELIABILITY is the best thing you can buy in a motor car.

The Regal LINE includes two other models: the Regal "40" at $1750 and the Regal "20"—the snappiest thing on wheels—$900.

*Suppose you send at once for advance information.*

**REGAL MOTOR CAR CO., Detroit, Mich.**




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# At Indianapolis Speedway Races

**all honors for tire quality and tire service go to**

# "Firestone"

# TIRES

**Eddie Hearne drove his 120 horsepower Benz all through the two days' racing, and won three out of four events without once touching his Firestone Tires—without losing a moment on account of tire trouble.**

On Saturday he successfully defended the Speedway Helmet in a ten mile free-for-all and then won the great one hundred mile race. On Monday he covered a ten mile race and later won the fifty mile free-for-all in 38 minutes, 2 seconds. All on the original Firestone cases and tubes untouched.

Notwithstanding the tremendous speed his Firestone Tires are still in perfect running condition. In achieving these victories Hearne defeated a large field of drivers and cars less fortunate in their tire equipment.

In the Munsey Historic Tour recently ended eight cars went through the terrific 1550-mile grind on Firestone Tires without one tire giving out or being replaced, and only six punctures all told.

**The Season's Speed Record for Tire Quality and Service as well as the Touring Record and the Every-Day-Motoring Record is "FIRESTONE."**

## THE FIRESTONE TIRE & RUBBER COMPANY

"America's largest exclusive tire makers"

Akron, Ohio

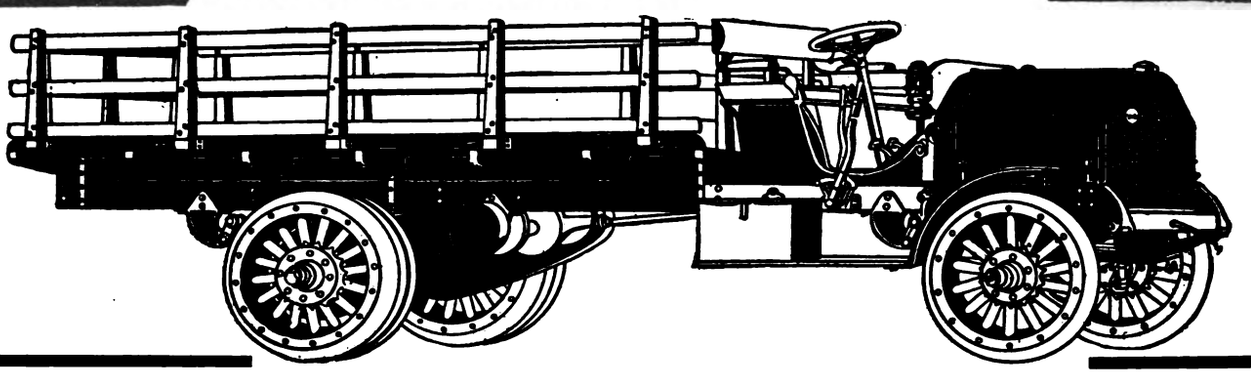
Branches, agencies and dealers everywhere


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# KISSEL KAR
# 3-5 TON TRUCK

## A "CAN'T-GET-STUCK" TIME-SAVING TRUCK

50 H. P.; 144 in. wheel base; 68 in. tread; 230 in. total length; load space 6 ft. x 12 ft. 5 in.; 10 to 12 miles per hour on direct drive. 15 miles on 4th speed unloaded.



The can't-get-stuck feature alone gives this truck a decided advantage over average trucks. By a patented differential lock with foot lever control, traction can be applied to both rear wheels at will of driver. In instances where a one-wheel drive truck would be "up against it" with the traction wheel on ice, or in a hole, the Kissel Kar Truck, having traction on solid ground, will have no difficulties.

Another time-saving feature is the four-speed transmission, four speeds forward and reverse, the direct drive third speed being used when loaded, and the fourth speed, geared up 25% when empty, making it possible to make time when unloaded without racing the engine.

Universal joints in distance rods adjust the load on uneven roads when wheels may be on different levels, nullifying excessive strains. Dust and oil tight chain cases; spring suspension such as carries the engine without vibration either when truck is loaded or empty; cone clutch, leather faced with springs under leather, with self-seating throw-out bearing; tires 36 x 4 front, 4 in. dual rear; the very highest grade materials used throughout.

## SPECIAL BODIES CAN BE FURNISHED

**We will make liberal propositions to dealers interested in handling this truck. Write for detail description.**

**KISSEL MOTOR CAR CO., 122 KISSEL AVE. HARTFORD, WIS.**

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For 1910 these Straight-Side Detachable Tires can be had at the same price as standard makes of Clincher Tires

# An Amazing Record of Tire Perfection

**In 1906 we replaced one tire for every hundred sold.**

**In 1910 we replaced one in every thousand.**

GOODYEAR tires were proved beyond question to be stronger and better than any other kind as long as four years ago—yet the **Goodyear Straight-Side Detachable Tire** today is better even than the old Goodyear tire **by a full thousand per cent.**

You probably recall having seen four years ago our circular called "Evidence," shown at the top of this page. This circular contained an extract from reports made by the Supervisor of the Tire Association on August 1, 1906, to all members of the Tire Association of 1906, and covered a period of eleven months, beginning September 1, 1905.

It showed the percentage of **replacements to output** which was made by every one of the big tire manufacturers who comprised this association, all of whom operated on a uniform mileage guarantee of 3,500 miles.

GOODYEAR

## STRAIGHT-SIDE DETACHABLE TIRES

### Goodyear Tires in 1906

Here is the table of replacements. Read it carefully. It is proof of the **relative reliability** of all the leading tires manufactured during 1906.

**Percentage of Replacements to Output**

| | |
|---|---|
| Goodyear Straight-Side Detachable Tires. | 1.41% |
| Another manufacture | 2.33% |
| Another manufacture | 3.91% |
| Another manufacture | 9.10% |
| Another manufacture | 9.60% |
| Another manufacture | 18.43% |

Notice that about **one per cent.** of the **Goodyear Straight-Side Detachable Tires** were found wanting in any particular or had to be replaced.

That is, practically only **one** Goodyear tire showed the slightest defect out of each **hundred** sold in 1906.

Compare this with the showing of other tires manufactured during 1906.

This table gave unquestionable **proof,** taken from the actual books of the large tire manufacturers of the United States:

First; that the **Goodyear Straight-Side Detachable Tire** in 1906 was **98.59 per cent perfect**—that it lacked only 1.41 per cent of being **absolute perfection.**

Second; that compared with other makes the **Goodyear Straight-Side Detachable Tire** was then **the best tire that money could buy.** These conclusions, remember, were derived from the **actual books** of the different manufacturers.

### No Higher in Price than Standard Makes of Clincher Tires

Goodyear Straight-Side Detachable Tires, with all their advantages, can be had for 1911 at the same price as standard makes of clincher tires. The goodness, the durability, the immunity from injury will not cost you an extra cent.

For the same price you get tires which will not creep nor come off the rim, tires which are quickly removed and easily replaced. You get tires which will give you the maximum mileage; tires larger than their rating, though of course they fit the rims for which they are rated.

Also you get tires which are **guaranteed** against rim-cutting. The straight outer sides of the **Goodyear Straight-Side Detachable Tires** permit the use of a rim with a wide-rounding flange where it holds the tire in place, so there are no sharp edges—nothing which can possibly cause rim-cuts.

Let us send you our books, "How to Select an Automobile Tire," and "A Dictionary for Tired People."

## Goodyear Tires Today

But, the facts we have been talking about were collected four years ago, and what you want to know is—how good are the **Goodyear Straight-Side Detachable Tires** today?

We recently analyzed our present cost of replacements from November 1, 1909, to June 1, 1910, figuring in **precisely the same way** as we did in 1906, and this is what we found out—

That while in 1906 our cost of replacements compared to total sales was one and forty-one hundredths per cent, now it is only one-tenth of one per cent.

That is to say, in 1906 a little more than one tire in every hundred was imperfect; but today not more than **one in a thousand** shows any defect whatever.

Out of every thousand **Goodyear Straight-Side Detachable Tires** now being turned out, **999 are perfect in every way.**

That is the result of our wonderfully improved methods, and of our unceasing watchfulness in manufacture.

It means more to you than simply tires which are perfect when they are put on your machine. It means tires which are almost immune to injury.

If we had replaced, without question and without any compensation, all articles which were presented for replacement during the above period, the results of carelessness and accidents—everything—the cost of replacement as compared with sales would still have been less than one per cent.

In other words, from carelessness, from over-strain, from riding deflated tires, from accidents of all kinds, the number of **Goodyear Straight-Side Detachable Tires** injured was less than one in every hundred used.

Do you think it possible for any other tire to show a record like that, or a record anywhere near approaching it?

There are just two main reasons why we are able to make such a wonderful showing, namely—**size** and **construction.**

Every **Goodyear Straight-Side Detachable Tire** is so strongly built that it is almost impossible to injure one. Into the base of each tire we put tapes made from 64 strands of piano wire. We vulcanize them there. When the tire is inflated these tapes contract in a vise-like grip. That means no creeping, no slipping, even when the tire is only partially inflated.

Also, each **Goodyear Straight-Side Detachable Tire** is **larger** than its rating. That means it will carry excess weight more easily. It means fewer punctures, fewer blow-outs, increased mileage.

The evidence we have given you, taken from our own books and the books of other manufacturers, should be strong enough to induce you to specify **Goodyear Straight-Side Detachable Tires** on your 1911 car. Any automobile manufacturer will put these tires on if you insist, and we think we have shown you why, in your own interest, you should insist on Goodyear Tires.

**THE GOODYEAR TIRE & RUBBER CO., Arthur Street, Akron, Ohio**

(91) **Branches and Agencies in All Principal Cities**

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# The Overland See What $1,000 Buys in an Overland The Overland

**Note what can be done by using automatic machinery—by enormous production—by devoting one factory to a single model—by saving the profits paid to makers of parts. See what a car you can now get for a little.**

The Overland has won the leading place in motordom by the use of modern methods. Over $3,000,000 has been invested to make Overland cars economically.

Each Overland factory is a model plant. There is not a lost motion—not a waste or repetition—from the raw materials to the finished car.

Each piece of machinery is adapted to making some part in the most exact, most rapid, most economical way.

That is how Overlands give so much for the money, and why they command such enormous sale. There is no skimping of materials, no slighting of workmanship. There are only up-to-date methods, which have been perfected by the army of Overland experts.

## Automatic Machinery

Even the best engineers are amazed when they go through an Overland factory. Here are myriads of machines—some of them costing into the thousands of dollars—each designed for the purpose of saving a trifle on some particular part.

Here is a machine which enables one man to do the work of sixty men. Here is a machine which performs thirty operations in the time which another machine took for one.

Here are welding machines—electrical welders—which bring steel to white heat while one takes a breath.

Here are rows upon rows of automatic machines, doing the work of an army of experts, and giving such exactness as human hands never gave.

Many of these machines were designed in our own factory—invented by our own engineers. Some save but a little—some save a great deal. The sum of their savings—on the thousands of parts which enter into a car—has cut the cost of Overlands 20 per cent within the past year alone.

Some high-priced makers say their cars are hand made. Overlands are made—as watches are made—by exact automatic machinery.

## Other Economies

We devote one factory to one model alone. Every machine is adapted to some particular part. Every man is trained in one operation.

There is a separate factory for mud guards, a factory for radiators, an engine factory, a factory which makes nothing but screws. There is a crank-shaft factory—an enormous plant—built to save you $15 per car.

Then there is overhead expense which, in many a factory, amounts to 25 per cent of the cost of a car. In the Overland factory that expense is spread over an annual output of $24,000,000.

Those are the reasons why Overlands give so much more than the rest for the money.

## 25 h. p.—$1,000

This year we are selling a 25-horsepower car, with a 102-inch wheel base—for $1,000. Its possible speed is 50 miles an hour. It will carry four people up a 50 per cent grade, starting from standstill.

It is not under-sized, not under-powered, like the usual low-priced car. It is a car to be proud of—a car that meets any requirement.

It is a car of matchless simplicity. The operation is by pedal control. One goes forward or backward, fast or slow, by simply pushing pedals. A child can master the car in ten minutes. A young woman is now driving one of these cars from the Atlantic to the Pacific.

The car is almost trouble-proof. Many an owner has run it thousands of miles without even cleaning a spark plug. These cars have been used in the U. S. Mail service for over a year and a half. During all of that time they have made their daily trips, in all sorts of weather, without a moment's delay. Hundreds of men who could afford any car have chosen for their own use this $1,000 Overland.

## 40 h. p.—$1,250

The 40-horsepower Overlands—with 112-inch wheel base—sell for $1,250 to $1,500, according to style of body, etc. The Marion-Overland—the marvel of motordom—sells for $1,850.

All of these prices include gas lamps and magneto, and the Marion-Overland includes a Prest-O-Lite tank.

Please send us this coupon for full information. Then measure the Overlands by any competitor. You will see why the Overlands have so quickly become the most popular cars in existence.

We have dealers in 800 towns.

(N-37)

**The Willys-Overland Company**
**Toledo, Ohio**

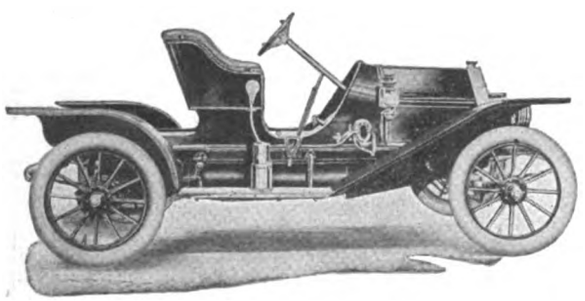
*Please send me information about*

*Passenger Cars* ☐ *Delivery Cars* ☐

*The Marion-Overlands* ☐

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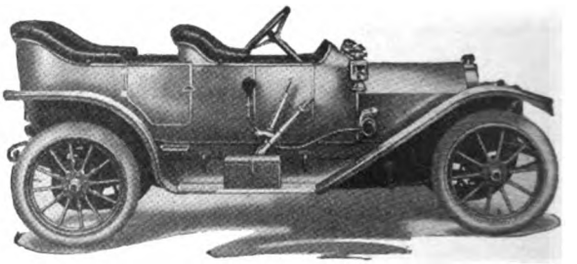
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The $1,000 Overland—25 horsepower—102-inch wheel base. Same car with single rumble seat, $1,050; with double rumble seat, $1,075; with complete toy tonneau, $1,100.

The Overland

Licensed Under Selden Patent



40-horsepower Overlands, with 112-inch wheel base, cost from $1,250 to $1,500. Marion-Overlands, $1,850. We fit these cars with all the latest styles of body, open or enclosed.

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THE MOTOR WORLD

Volume XXIV. New York, U. S. A., Thursday, September 15, 1910. No. 11

## BUICK'S BIG LOAN CAME HIGH

**Banks Will Obtain 24 Per Cent. for the Money Advanced—"Series B" Notes for Merchandise Creditors.**

It now is known why W. C. Durant, chairman of the General Motor Co.'s executive committee and the "wizard" of that $60,000,000 venture, railed at the terms dictated by the New York bankers of whom he sought the loan of $2,500,000 to relieve the stringency of the Buick Motor Co., the General Motors' chief constituent, due to the overproduction of Buick cars.

The terms laid down by the banks were the sort that makes men rail. Durant at first refused to accept them, but he needed the money and his acceptance was but a matter of time, and the "wizard" subscribed to them with the best grace possible. He, or rather the Buick company, will pay 24⅔ per cent. for the use of the money. The banks underwrote the issue of one-year notes at $85, the notes to bear 6 per cent. interest. They are secured by the stock of what are considered the two strongest companies in the General Motors' organization.

It transpires that there are to be two separate and distinct issues of notes. That taken by the banks is denominated Series A, and the money raised on them is to be used for working capital. The other issue, Series B, will be offered to the merchandize creditors and will be guaranteed by the stock of a third company in the General Motors' establishment. At a meeting of Buick creditors on Friday last, 96 per cent. of them agreed to accept these Series B notes, but the refusal of the other 4 per cent. to do so at least temporarily defeated the plan. Another meeting, however, will be held today in the Union League Club house in Cleveland, when it is hoped to bring the objecting minority into line.

### Two More Admitted to N. A. A. M.

Two new members were elected to the National Association of Automobile Manufacturers at its monthly meeting in New York City on the 7th inst., and modifications were made in the association's agreement with the Motor and Accessory Manufacturers in regard to space at the Chicago show next February, the changes giving the accessory association a concession as to the price of some of the show space for which it has contracted. The additions to the membership are the Kissel Motor Car Co., of Hartford, Wis., and the Pullman Motor Car Co., of York, Pa.

### Garford in Line for Selden License.

As was expected, the Garford Co., of Elyria, O., one of the trade veterans which has entered on a policy of direct representation in the market for its four and six cylinder cars, is in line fo a Selden license. Its application has been approved by the executive committee of the Association of Licensed Automobile Manufacturers, and formal issue of the license is expected to follow shortly.

### Bankruptcy Proceedings Against Gaeth.

A receiver has been appointed for the Gaeth Automobile Co., of Cleveland, O., which makes the Gaeth car. Involuntary bankruptcy proceedings have been brought against the company by the Diamond Rubber Co., $4,919.31; the Lake Shore Sawmill & Lumber Co., $21, and C. S. Castle, $384.30.

### Ohio Farmers Take Kindly to Findlay.

Going even further than selling automobiles to farmers, the recently organized Findlay Motor Car Co., of Findlay, Ohio, is selling its stock to farmers. A syndicate of farmers residing near Jenera, Ohio, has agreed to take $30,000 worth of the common stock and $10,000 of the preferred.

### Kissel-Kar Obtains a Selden License.

The Kissel-Kar is to be a licensed product in the future. Its makers, the Kissel Motor Car Co., of Hartford, Wis., have been granted a Selden license by the Association of Licensed Automobile Manufacturers.

## NO LENIENCY FOR "LAME DUCKS"

**Parts and Accessory Makers Preparing for the Future—Likely to Act Concertedly in Refusing Extensions.**

Cold comfort at the hands of the parts, materials and accessories men in the trade probably awaits those automobile manufacturing concerns that in the future may become mired in financial embarrassments. Instead of leniently assisting firms of this kind, either by accepting long term notes or by allowing them to give stock which virtually capitalizes their indebtedness, concerted action is being taken to unite the parts and accessories trade in killing off the "lame ducks."

It has become a conviction that it is better to "close them out," so to speak, and to settle claims for such percentage on the dollar as can be obtained at the time of the original failure, and thereby eliminate concerns that if permitted to continue would disturb the industry as a whole. Any other policy, it is contended, tends simply to prolong the situation and to invite subsequent difficulties. If a firm cannot arrange for adequate new capital independent of its assets and liabilities at the time of its failure, the parts creditors are urged to take no steps which involve its being retained in business.

In line with these views, there is to be established in the near future at the headquarters of the Motor and Accessory Manufacturers a department designed to allow the members to have a bureau where they can file claims arising from any failure and thus act in concert in connection with any final decision to be arrived at with reference to whether a firm is entitled to assistance or should be classed as not worthy of resuscitation. Through the medium of the bureau, all of the creditors involved in any paticular failure may be brought close together for decisions that could not be reached if the creditors acted

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wholly independently. The results of such an arrangement promise many far-reaching effects in the industry.

**Case of New Bremen Organizes.**

The Case Motor Car Co., which recently was launched in New Bremen, O., has elected the following officers: O. J. Boesel, president; W. E. Case, vice-president and general manager; William Grothaus, assistant general manager; A. C. Settlage, secretary and treasurer; George W. Stephens, shop superintendent, and W. E. Case, J. H. Grothaus and A. C. Settlage, executive committee. The company, which is capitalized at $50,000, is to make commercial vehicles, along lines exemplified by two models which Case and Stephens have been demonstrating to New Bremen business men. The plant will be housed in the buildings of the Laufersieck & Grothaus Co., which reverts to the new company.

**Morgan & Wright Open Branch in Denver.**

Morgan & Wright, of Detroit, Mich., have opened a branch in Denver, Col., where a complete stock of Morgan & Wright tires and tubes will be carried. The new branch is located in the Majestic building, 217 Sixteenth street. James Maginnis, one of the best known salesmen on the company's staff, and Henry Althens, formerly in charge of the tire department of the Fry & McGill Motor Supply Co., Denver, have been put in charge.

**Marko Storage Battery Exhausts Itself.**

A petition in bankruptcy has been filed against the Marko Storage Battery Co., 250 West 54th street, New York City, manufacturer of storage batteries for automobiles and motor boats. The company has been in business about four years, and although it is capitalized at $30,000, its probable assets are placed at $1,500.

**Pittsburg Electrics Locate in New York.**

The Pittsburg Motor Vehicle Co., manufacturing the Pittsburg line of commercial electric vehicles, has removed its factory and main office from Pittsburg, Pa., to New York City. The company now occupies a new and fully equipped plant at Concord avenue and East 143d street.

**For the Handling of Fisks in Texas.**

The Fisk Rubber Co.of Texas has been organized by local capital in San Antonio to handle Fisk tires in the Lone Star State. In addition to maintaining headquarters in San Antonio, distributing depots will be located in Dallas and Houston.

**Pilot May Move to Des Moines.**

Promises of financial subsidy have been secured by the Pilot Motor Car Co., of Richmond, Ind., for it to move to Des Moines, Ia. The proposition provides for additional capital amounting to $150,000.

## FIRE RATES ON CARS ADVANCED

**Increases Agreed on by Principal Companies — Premium Rates Grow as Policy Face is Reduced.**

The fire insurance rates on automobiles have been increased by the dozen or more companies in this country writing such risks. The rates on renewals, however, will not go into effect until October 1st. All of the domestic concerns are included in the friendly agreement. The increase will apply only to the fire hazard, there being no change in liability rates, either for collision or general property damage.

Some time ago the local charge of 2½ per cent. was reduced to 2 per cent., partly owing to the continued complaints of motorists as to high cost, but more, it is said, because of the competition of the London Lloyds. The latter, of course, are not duly entered in New York state, but they manage to do plenty of business, nevertheless, for it is easy to telephone Jersey City. The companies authorized to do business in the Empire State have had a great deal of difficulty and loss in taking old models as risks. In attempting to replace parts, they found many manufacturing concerns had gone out of business. Unless certain parts were replaced the balance of the cars were good only for junk. As cars grew old, too, owners were inclined to lessen the amount of policies, taking them out for all sorts of odd sums.

Consequently a table of rates has been adopted by which only certain amounts can be taken out and the rate increases in proportion as the amount of policy requested drops. For instance, on cars originally costing $500 to $700, the rate is 2¾ per cent. for from $700 down to $500 indemnity. If only $400 is wanted, the cost is 4 per cent. If $1,750 is asked on cars originally costing $1,500 to $2,000, the rate is 2½ per cent., while a $400 policy will cost 4½ per cent. On $6,500 cars the rate for top amounts is 2¼ per cent., but $2,000 policies cost 4 per cent. Then, in addition there is an extra charge of one-fourth of one per cent. on 1907 models that cost $2,000 or less.

A deduction of one-fourth of one per cent. is allowed, however, on private pleasure cars insured with private garage warranty. Additional equipment is included in the original list price, but not extra bodies, which are subject to special rules. The rates apply only to new cars. On the second-hand cars of dealers there is an additional charge of one per cent.

**Denies General Motors Control.**

Indignant denials are made by President W. C. Anderson, of the Anderson Carriage Co., of Detroit, Mich., that either that company or the Elwell-Parker Co., of Cleveland, Ohio, which it controls, is owned by the General Motors Co. The denial is evoked by the publication in a New York newspaper of the Anderson Carriage and Elwell-Parker names as among the General Motors subsidiaries. He declares that "Not a dollar of the capital stock of either of these companies is held or owned by anyone connected with General Motors."

**Banker Takes a Bigger Factory.**

The Banker Wind Shield Co., of Pittsburg, Pa., which for many years has been located in the Banker building, at Baum and Beatty streets, East End, is moving to a plant formerly occupied by the Pittsburg Motor Vehicle Co., at Ellsworth avenue and Summerlea street. The change gives the company 10,000 square feet of factory floor space.

**Marshalltown Again to Make Tops.**

The Marshalltown Buggy Co., of Marshalltown, Ia., is to resume the manufacture of automobile tops, a line in which it has had considerable experience. Its automobile top business was taken over by the Gates-Osborne Mfg. Co., of Marshalltown, which now is being moved to Indianapolis, and the Buggy company will once more take up this line of production.

**Velie Establishes a Branch in Boston.**

The Velie Motor Vehicle Co., of Moline, Ill., is to establish a direct factory branch in Boston, Mass., for the handling of Velie cars. The branch will be located at 92 Massachusetts avenue and will be in charge of M. H. Lane, who has been assistant manager of the Velie Motor Car Co., of Chicago.

**Bailey Becomes the Federal Truck.**

The Bailey Motor Truck Co., of Detroit, Mich., has changed its firm name and in future will be known as the Federal Motor Truck Co. M. L. Pulcher, formerly secretary and purchasing agent of the Oakland Motor Car Co., retains his position as general manager of the concern.

**G & J Changes Subsidiary's Name.**

The G & J Tire Co., of Indianapolis, Ind., which for a long time has contained within itself a subsidiary company known as the Indianapolis Rubber Co., has changed the name of the latter to conform with its own. Court action has been taken changing the name to the G & J Tire Co.

**Warren to Have a Parts Plant.**

The Warren Iron & Specialty Mfg. Co. has been organized in Warren, Pa., with a capitalization of $50,000, and is to make small parts for automobiles. The concern has purchased the plant of R. J. Schlosser, on Pennsylvania avenue, east.

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## LICENSEES DRAW FOR SHOW SPACE

**Twenty-two Obtain Position on the Main Floor in New York—Buick Affairs Cause Wholesome Discussion.**

Although drawing for space at the forthcoming national show in Madison Square Garden, New York, January 7-14, was the chief business transacted at the meeting of the board of managers of the Association of Licensed Automobile Manufacturers on Thursday last, 8th inst., the discussion of trade conditions, particularly as they are affected by the turn in the Buick-General Motors affairs, was of even keener interest to those in attendance.

The discussion all was of a reassuring nature. As a matter of fact, the wise heads of the association saw the shadows gathering months ago and prepared to offset their approach. There then was general counsel to cease expansion, to contract outputs and generally to practice conservatism, and if any member suffers it will be largely because of failure to heed the advice. At last Thursday's meeting the position in which the Buick company finds itself was pointed to as emphasizing the need for conservatism, and it is known that even the most "chronic insurgent" in the ranks was for once in hearty accord with his fellows. There were those who stated that despite the fact that they have in hand more orders than actually were filled during the season just closing, they will adhere to their previous assurances and hold fast to their original estimates of production. As one member expressed it, the fact that Buick had been able to obtain financial aid was in the nature of a relief to the entire trade, as its failure to do so would have made the matter one of real concern to the industry.

It also came out at the meeting that two Western members are far in arrears in their royalty payments, and that because of their delinquencies they are to be cited to show cause why their Selden licenses should not be canceled.

In the drawing for exhibition space, only Part I of the show—as the first week which will be devoted solely to pleasure cars will be termed—was considered. The members drew in the order of their payment of royalty, Buick, as the largest payer, having first choice. The others drew in the following order for space on the main floor: Overland, E-M-F, Cadillac, Packard, Maxwell, Chalmers, Reo and Pierce-Arrow, Stearns, Thomas, Olds, Franklin, Dayton, Oakland, Lozier, Elmore, Winton, Locomobile, Hudson, Mitchell, Stevens-Duryea and Peerless.

The others who must be content with space in the Exhibition Hall and on the balconies include the Amplex, Moon, Mercer, Corbin, Bartholomew, Marmon, Knox, American, Matheson, National, Selden, Waltham (White), Buckeye, Moline, Premier, Autocar, Columbia, Alco, Studebaker, Inter-State, Ohio, Palmer-Singer, Kissel, Hol-Tan, Chadwick, Speedwell, Regal, McIntyre, Marquette, Acme, Pierce-Racine, Flandrau, Hupmobile, Midland, Brewster, Courier, Simplex, Atlas, Dorris and Cartercar.

At the meeting Alfred Reeves, general manager of the association, was added to the show committee, which now consists of Col. George Pope, chairman; Merle L. Downs, secretary; Charles Clifton and Alfred Reeves.

Charles Clifton, of the Pierce-Arrow Motor Car Co., head of the association, presided at the meeting. The others in attendance were: James Joyce, American Locomotive Co.; G. H. Strout, Apperson Bros. Automobile Co.; J. S. Clarke and D. S. Ludlum, Autocar Co.; O. Y. Bartholomew and R. A. Whitney, The Bartholomew Co.; J. W. Lambert, Buckeye Mfg. Co.; W. C. Leland, Cadillac Motor Car Co.; H. W. Nuckols, Columbia Motor Car Co.; H. S. Hart, Corbin Motor Vehicle Corp.; W. R. Innis, E-M-F Co; G. H. Stilwell, H. H. Franklin Mfg. Co.; Elwood Haynes, Haynes Atomobile Co.; Howard E. Coffin, Hudson Motor Car Co.; I. H. Page, Stevens-Duryea Co.; G. A. Mathews, Jackson Automobile Co.; A. N. Mayo, Knox Automobile Co.; S. T. Davis, Jr., Locomobile Co. of America; H. A Lozier, Lozier Motor Co.; F. F. Matheson, Matheson Motor Car Co.; Benjamin Briscoe, Maxwell-Briscoe Motor Co.; W. T. White, Mercer Automobile Co.; W. E. Metzger, Metzger Motor Car Co.; J. W. Gilson, Mitchell-Lewis Motor Co.; W. H. Vandervoort, Moline Automobile Co.; M. J. Budlong, Packard Motor Car Co.; L. H. Kittredge, Peerless Motor Car Co.; George Pope, Pope Manufacturing Co.; H. O. Smith, Premier Motor Manufacturing Co.; T. C. O'Connor, Pullman Motor Car Co.; R. E. Ingersoll, Reo Motor Car Co.; George J. Dunham, Royal Tourist Car Co.; G. E. Mitchell, Alden-Sampson Manufacturing Co.; R. H. Salmons, Selden Motor Vehicle Co.; F. B. Stearns, F. B. Stearns Co.; W. R. Innis, Studebaker Automobile Co.; Windsor T. White, Waltham (White) Manufacturing Co.; John N. Willys, Willys-Overland Co.; Thomas Henderson, Winton Motor Carriage Co., and Alfred Reeves, general manager.

### Fisk to Open Five More Branches.

The Fisk Rubber Co. is about to extend its branch system to five additional cities, viz., Providence, R. I.; Rochester, N. Y.; Baltimore, Md.; Omaha, Neb., and Oakland, Cal. In all save Baltimore and Omaha, the branches will be opened on the 1st prox.; in those two cities the openings await the completion of the new buildings in which they will be housed and which are in course of erection.

## TO CALL IMPORTERS TO ACCOUNT

**Suits in Preparation Against All not Operating Under Selden License—Those Whom the Litigation will Affect.**

After a long period of seeming immunity, the importers of foreign cars who are not operating under Selden license, are to be disturbed by damage suits and applications for injunction. At one time the greater proportion of the importers were licensees under the patent, but subsequently they permitted their license arrangement to lapse, until at present only three are in the Association of Licensed Automobile Manufacturers' fold, these being the Hol-Tan Co., importer of the Lancia; Brewster & Co., handling the Delaunay-Belleville, and the Flandrau Motor Car Co., having the sale of the Brasier. All the others of the importers' colony have been operating without much thought or worry about being licensed, but the Selden attorneys now are on their trail with suits similar to that successfully brought aaginst Panhard & Levassor along with the suit against the Ford Motor Co.

The litigation program that has been decided upon includes the bringing of suits against the Fiat, Benz, Renault and other importers who either have neglected or refused to take advantage of the license terms that were possible for them following the sustaining of the Selden patent in the United States Circuit Court for the Southern District of New York, by Judge Hough. The filing of the suits is timed to bring the cases for hearing in October if possible, when in lieu of actual injunctions the importers may be compelled to file ample bonds pending the result of the appeal in the Ford case, which bids fair to be decided before the first of the coming year.

### Studebaker to Move Further Uptown.

The Studebaker Bros. Co. of New York, which handles Studebaker, E-M-F and Flanders cars in New York City in connection with other Studebaker vehicle products, is to move from the large building at Broadway and 48th street, which it has occupied for nine years, to a location above Columbus Circle. Its present building has been leased to one tenant for a long term of years, and three stories are to be added to the present structure, making thirteen stories in all.

### Sterling Greatly Enlarges Its Scope.

The Sterling Mfg. Co., 611-619 West 55th street, New York, of which A. Winick is president and J. F. Mulqueen manager, has begun the manufacture of steel and aluminum bodies, tanks, hoods, dustpans, tops, etc. Formerly it was engaged chiefly in repair work.

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### The Week's Incorporations.

Los Angeles, Cal.—Hollywood garage, under California laws, with $14,000 capital; to operate a garage.

St. Louis, Mo.—Rowmobile Mfg. Co., under Missouri laws, with $200,000 capital. Corporators—Matthew McGowan, Frederick Boettler, Frederick P. Portman.

Chicago, Ill.—Marion Motor Car Co., under Illinois laws, with $10,000 capital; to deal in automobiles. Corporators—Robert E. Maypole, Alvar A. Landry, George R. Carpenter.

Detroit, Mich.—Electric Truck Co., under Michigan laws; to deal in electric vehicles and operate a garage. Corporators—Alexander Dow, S. M. Sheridan, S. C. Mulford, J. W. Brennan.

St. Louis, Mo.—Missouri Taxicab Co., under Missouri laws, with $25,000 capital; to operate taxicabs and a garage. Corporators—Herman Rindskopf, Clara Isaacs, Addie Rindskopf.

Brooklyn, N Y—Curry Auto Co, under New York laws, with $10,000 capital; to deal in supplies and accessories Corporators—Moses Cohen, Isidor B. Ehrmann, Charles A. Curry.

Akron, O.—American Tire & Rubber Co., under Ohio laws, with $200,000 capital; to manufacture all classes of rubber goods. Corporators—F. L. Kryder, Harvey Musser, J. R. Huffman.

Rochester, N. Y.—Auto Commercial Co., under New York laws, with $10,000 capital; to deal in automobiles. Corporators—George F. Shelter, Elliott E. Diamond, Juliet M. Diamond.

Chicago, Ill.—Woods Auto Service Co., under Illinois laws, with $20,000 capital; to conduct an automobile delivery service. Corporators—Henry W. Wales, Matt B. Pittman, Sidney S. Gorham.

Minneapolis, Minn.—Automobile Owners' Association, under Minnesota laws, with $50,000 capital; to promote the interests of motorists. Corporators—H. M. McAllister, T. G. Newgood, A. C. Raymond.

Buffalo, N. Y.—Peerless Windshield Co., under New York laws, with $10,000 capital; to manufacture windshields and accessories. Corporators—Timothy Gingras, William H. Gingras, M. H. Gingras, all of Buffalo.

Cleveland, O.—Ohio Regal Auto Co., under Ohio laws, with $100,000 capital; to do general automobile business. Corporators—F. W. Haines, J. E. Lambert, Burt Lambert, C. R. Lambert, F. L. Pierce.

Detroit, Mich.—Monroe Body Co., under Michigan laws, with $500,000 capital; to manufacture automobile bodies. Corporators—R. F. Monroe, F. H. Yeomans, J. C. Rittenhouse, J. T. Lombard and others.

Trenton, N. J.—Simms Magneto Co., a New York corporation, with $1,000,000 capital, admitted to do business in New Jersey. Corporators—Fred R. Simms, Alfred Nathan, Mortimer Stifel, all of New York City.

Los Angeles, Cal.—Whittier Garage Co., under California laws, with $10,000 capital, $500 of which has been paid in. Corporators—Charles Saunders, F. A. Frantz, Gordon Saunders, J. A. Hiller, J. F. McDill.

New York City, N. Y.—Merit Motor Car Mfg. Co., under New York laws, with $50,000 capital; to manufacture motors, engines, automobiles, etc. Corporators—E. H. Knight, J. H. Riviere, E. C. Billings.

St. Louis, Mo.—Lindell Motor & Auto Parts Mfg. Co., under Missouri laws, with $6,000 capital; to deal in automobiles and motors. Corporators—Edward B. Campbell, Alfred A. Wagner, George S. Franks.

Trenton, N. J.—King Auto Co., under New Jersey laws, with $3,000 capital; to manufacture and deal in motor vehicles—Corporators—Hugh Grant King, Florence A. King, William Holt Apgar, Rettie H. Apgar.

Richmond, Va.—Standard Auto Equipment Co., under Virginia laws, with $10,000 maximum, $3,000 minimum capital; to do general automobile and carriage business. Corporators—B. C. Pattee, George A. Perry, C. R. Moore.

Detroit, Mich.—Ohio Regal Auto Co., under Ohio laws, with $100,000 capital; to establish branch of Cleveland main offices in Michigan. Corporators—F. W. Haines, J. E. Lambert, Burt Lambert, C. R. Lambert, F. L. Pierce.

New York City, N. Y.—Shaffer Motor Co., under New York laws, with $100,000 capital; to manufacture and deal in automobile motors, engines, machinery, etc. Corporators—C. W. Shaffer, Earle W. Webb, John L. Lyttle.

Cleveland, O.—Standard Top & Equipment Co., under Ohio laws, with $10,000 capital; to manufacture automobile and buggy tops. Corporators—Thomas Swan, Joseph A. Craig, James F. Martens, Joseph Buling, Gertrude M. Swan.

Newark, N. J.—Auto Delivery Truck Mfg. Co., under New Jersey laws, with $50,000 capital; to manufacture automobile machinery and conduct a general repair shop. Corporators—N. Davidson, I. Rosenbaum, A. Tapper, P. E. Drake.

Detroit, Mich.—Universal Motor Truck Co., under Michigan laws, with $350,000 capital, of which $90,000 has been paid in; to manufacture commercial motor vehicles. Corporators—Judge Rohnert, August P. Kling, Louis Kamper, A. E. Barker and others.

New York City, N. Y.—Electric Vehicle Association of America, under New York laws, without capital; to promote the adoption and use of electric vehicles for business and pleasure purposes, etc. Corporators—Weldon W. Freeman, Charles G. M. Thomas, Philip D. Wagoner.

### Changes Among Prominent Tradesmen.

A. B. Cumner has been made manager of the Autocar service building which the Autocar company, of Ardmore, Pa., has completed in Boston, Mass., and which is to be opened on the first of October. The building, which is located at Beacon street and Commonwealth avenue, includes garage and mechanical departments in addition to salesrooms. Cumner but recently returned from the Pacific Coast where he has been looking after Autocar interests.

L. B. Sanders, who has been in charge of the Chicago sales of the Brush Runabout Co., Detroit, Mich., has been appointed district manager of the Brush interests of the United States Motor Co. in the Central Western states. He will be succeeded as manager of the Chicago branch of the Brush by P. P. Pollock, formerly a Southern traveling representative of the company.

Lawrence Moore, formerly connected with the Gear Grinding Machine Co., has been made sales manager of the Russell Motor Axle Co., of North Detroit, Mich. The sales of the company's automobile axles previously were handled by Roger B. McMullen, of Chicago, acting as general sales agent, but all sales now will be handled by its own sales department.

George Williams has resigned the superintendency of the Indianapolis factory of the Willys-Overland Co. to become general superintendent of the Pierce Motor Co., Racine, Wis. His departure was made the occasion for a farewell feast and gift presentation given by the office force and foremen of the motor department at Indianapolis.

Gaylord Warner has been appointed manager of the Chicago branch of the E. R. Thomas Motor Co., Buffalo, N. Y. He succeeds C. T. Paxson, who has resumed charge of the company's retail branch in Buffalo.

A. D. Corwin, of Brooklyn, has been installed as manager of the Buick branch agency in that borough. He for some time was agent for that car at Riverhead, Long Island. He succeeded Fred F. Colver.

J. E. Savelle has resigned as manager of the New England Motor Vehicle Co., of Boston, Mass., handling Rainier and Parry cars. He will undertake the construction and equipping of a new garage project.

E. P. Nussbaum has resigned as genera. representative of the Jones Speedometer. His plans for the future are not yet announced.

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### Increases of Capitalization.

Cincinnati, O.—Cincinnati Taxicab Co. increases capital from $20,000 to $40,000.

Celina, O.—Celina Auto Co. increases capital from $10,000 to $20,000.

Lansing, Mich.—Auto Body Co. increases capital from $150,000 to $250,000.

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## IN THE RETAIL WORLD.

W. T. Reinhart has engaged in the garage business in Ogden, Ia.

A new garage has been opened in Kearney, Neb., by J. Sitz & Son.

O. L. Ramstack has opened a garage and repair shop in West Bend, Wis.

Kingman, Kansas, soon is to have a garage. W. V. Severs is constructing it.

Thompson & Slattery have sold their automobile business in Spirit Lake, Ia., to Bergman & Salzer.

A new garage is to be erected in Pleasantville, N. Y., at a cost of $7,000. Louis Zetmire is the owner.

Oelwein, Iowa, soon is to have its first public garage. Ray Downing and W. B. Collinson are building it.

T. A. Mitchell, of Council Bluffs, Ia., has purchased an interest in the Atlantic Automobile Co., which conducts a garage in that city.

J. W. Robisch is erecting a large garage on Main street, Jefferson, Wis. Besides doing a general repair work he expects to deal in second-hand cars.

The Interstate Motor Sales Co., of Indianapolis, Ind., has taken possession of its new quarters at 427 North Meridian street. It has added Wintons to its line of cars.

The firm of Fletcher & Hinke, automobile dealers in Hamburg, Ia., has been dissolved by mutual consent. Fletcher will continue the business under his own name.

E. R. Jackson and William E. Walter have formed a partnership in Philadelphia under the style the Jackson-Walter Co. They will represent the Owen car in that city.

Nicholas Marinaro, of Morristown, N. J., has purchased the triangular piece of property situated between Speedwell and Sussex avenues. He will erect a fireproof garage thereon.

The Gotham Car Co. has been given the New York City agency for the S. V. G. cars, made by the Acme Motor Car Co, of Reading, Pa. Salesrooms have been opened at 1853 Broadway.

The Cartercar Co., of Pontiac, Mich., has established a branch in New York City, at Broadway and 77th street. W. S. Williams, eastern distributor for the company, has been placed in charge.

Under the style Biays & Cochrane, two Marylanders will open a garage and salesroom in Cumberland, Md. The three story structure which they are erecting on Union street will cover 40 x 126 feet.

The Haas Motor Co. is the name of a new company which has been organized in Atlanta, Ga., with Herman J. Haas as manager. Bergdoll, Winton, and Rauch & Lang electrics will be carried.

George and Elmer Roberts will enter the garage business in Shenandoah, Pa. They have purchased the Shuggars estate property on North Jardin street on which they are building a brick garage.

Taking part of the store of the Pagel-Allen Co., at 1407 Hennepin avenue, Minneapolis, Minn., the Racine Auto Tire Co. has established a salesroom in the Flour City. Frank Bailey is in charge of it.

Another big garage is in course of construction on Olive street, near 11th street, Los Angeles, Cal. S. Y. Turner and P. M. Sprowls are building the structure, which will be 50 x 155 feet and will cost $42,000.

C. G. Hubbard, of Spokane, Wash., has purchased a large plot on Fourth avenue, between Post and Lincoln streets, on which he will build a garage. The structure is to be three stories high, of brick and concrete.

Chadwick and Hudson cars will be featured by the A. S. John Automobile Co., which just has established itself at 236-238 Avenue C, San Antonio, Texas. A. S. John is president of the concern, and H. G. Hayes treasurer and secretary.

The Texas Tallyho Co., of San Antonio, has been formed by C. B. Craft, who is to be its president-manager, to do a general automobile livery business. The garage is located at the corner of Evergreen street and San Pedro avenue.

W. E. Chapman & Son have purchased the good will and stock of the Neola Auto Co., Neola, Ia., and will continue the business under their firm name. Previously T. A. Mitchell held the controlling interest in the Neola company.

E. R. Wilson, formerly manager of the Paxton-Mitchell Co., Omaha, Neb., has formed a company under the style the E. R. Wilson company with headquarters at 2010 Harney street. The new company will handle Lexington cars exclusively.

The Howard Automobile Co., of San Francisco, Cal., has taken over the business of the Northwest Buick Co., distributors of the Buick car in Oregon, with headquarters in Portland. Mel Johnson of the Howard company will be the manager.

Howard B. Smith, president of the Empire Sales Co., Buffalo, N. Y., has been elected president of the Overland-Buffalo Co., a new concern just organized. As the name indicates, Overland cars will be featured at the salesrooms, which are at 918-920 Main street.

M. C. McKenzie has purchased a half interest in the Piedmont Motor Car Co., located at 105 North Pryor street, Atlanta, Ga. The company, which is enlarging its present quarters, handles the Stoddard-Dayton, Marmon and Peerless gasolene cars and the Baker electrics.

Charles S. Johnson, formerly sales manager for the Bates-Odenbrett Automobile Co., of Milwaukee, Wis., has taken over the agency for Interstate cars. He has been given the whole state of Wisconsin and the northern part of Michigan in which to exercise his selling abilities.

The Edgewood Garage, located at 7 Edgewood street, is the latest addition to Boston's colony of garages. J. Hiram Smith, vice-president of the Reliance Speedmeter Co., is the proprietor. The structure is two stories high, of brick, and contains about 27,000 feet of floor space.

The new garage just completed at 465 Woodward avenue, Detroit, Mich., will be occupied by three automobile concerns. Thomas H. Harris will feature the Krit, Kenneth Montgomery the American line, while the remainder of the building is to be given over to Abbott-Detroit cars.

McFarland "Sixes" will be represented in the south by the McFarland Southern Co., which just has been formed by M. L. Fuller former president of the Corker Motor Car Co., distributor of the Haynes cars. Fuller's territory includes Georgia, Tennessee, Alabama, Mississippi, Florida and South Carolina.

Combining under the same roof the sales and mechanical departments which formerly were separated, the Fanning Motor Co., of Philadelphia, Pa., has opened its new headquarters in the Scottish Rite building, corner Broad and Race streets. As heretofore, Thomas cars will be handled exclusively.

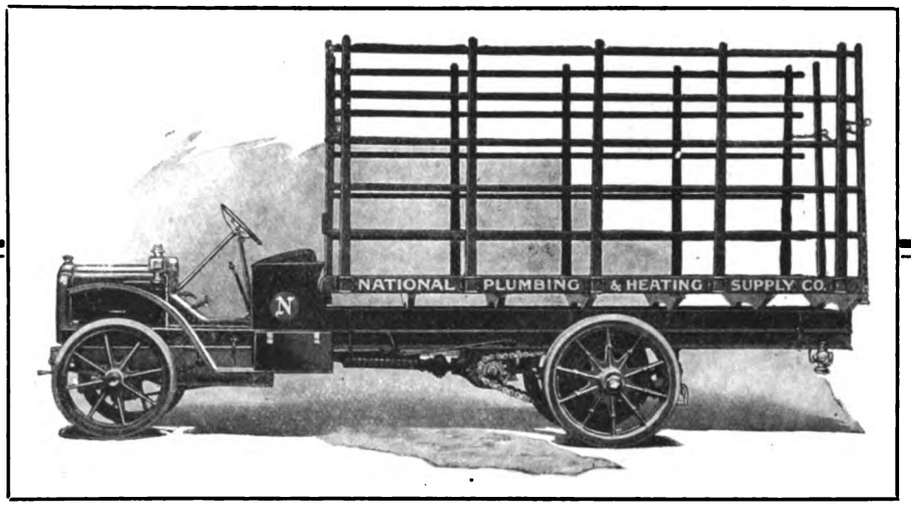
The Alco Motor Sales Co., 832-36 Hennepin avenue, Minneapolis, Minn., has absorbed the Victoria Motor Car Co., taking over the agencies for the various lines of cars which the latter represented. The principal stockholders of the Victoria company have taken stock in the Alco concern, of which M. R. Nyman is president.

Under the style the Brush-Toledo Co., a new concern has established itself in Toledo, Ohio. J. B. Dosson, who is the manager of the concern, for several months has been the agent for Brush cars in Toledo, but now has been appointed distributor for Northwestern Ohio, organizing the company to handle the business.

Finding their present quarters too crowded to properly care for their increasing business, Smith Bros., owners of the Park Garage in Manchester, Conn., are preparing to move into a more commodious building of their own. The new structure is located on Bissell street, near Main. It is 63x105 feet, two stories high, of brick and concrete.

R. W. Anslem, previously identified with the General Motor Car Co. of St. Louis, has organized the Grand Motor Car Co. in that city and has acquired the Regal agency, which formerly was held by the General company. Pending the completion of a new building, 55 x 180 feet, at Grand avenue and Russell street, the Grand Motor Car Co. will be located at 743 Bayard avenue.

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# The White Trucks at Chickamagua

THE only problem of the mechanically-propelled truck is to demonstrate its reliability. Every cartage department knows the economical advantage of the gasoline motor vehicles, and the only reason they are not installed generally is because the proprietors are waiting the advent of a reliable motor truck.

A remarkable demonstration of this reliability was made by the White Motor Truck at Chickamagua. For more than thirty days the White ton and a half truck did the work of from three to six mule teams, of four mules each. It made daily trips from Chickamagua to Chattanooga, a total distance of twenty-two miles, often making three or four trips a day—in every way possible it satisfied the most exacting army requirements. This work was cross-country and much of the time under unfavorable road conditions.

## What It Means

The object lesson from the Chickamagua maneuvers is simply—what White Trucks did there they will do for you. The White Trucks at Chickamagua were there for a test, operated by the United States Regular Army officers, and the test was thorough, not only for reliability but flexibility and adaptability to every situation.

That the White Truck emphatically responded to every test suggested is the best evidence that it is the motor truck first to demonstrate its positive reliability and economy under the severest requirements.

Details of the loads hauled, the expense of up-keep and maintenance at Chickamagua will be gladly furnished upon request.

Catalogues and other literature also willingly supplied.

# THE WHITE COMPANY

**830 EAST SEVENTY-NINTH STREET CLEVELAND, OHIO**

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THE MOTOR WORLD

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## The Lamb that Refused to Feed.

Even Napoleon over-reached himself. Since his day many emulators have sought to conquer the world and failed. The man who likens it to a lamb and aims to have it feed out of his hand is more than likely to discover that the world is rather an old lamb and quite a large one; in fact, he is apt to learn that it no longer is a lamb but a full grown ram. Rams usually have horns, too, and are not too tractable, and horns usually are useful for butting purposes.

It is not strange that the automobile industry should have developed a near-Napoleon, nor is it strange that he should have dreamed and even boasted that it must feed, lamblike, out of his hand. That his dream should be shattered—that he should awaken to discover that the lamb is a ram, strong and full grown, and to feel the force of its horns, scarcely should excite much surprise. The process of world-compelling is an expensive one and one fraught with peril, and when it concerns a flourishing industrial movement and entails the enmeshing of the industry in ticker tape, which is foreign to its nature, the expense and peril does not fall alone on those intent on bringing the world to their feet.

Ever since the automobile industry developed what his biographer styled a "wizard" with Napoleonic tendencies and since the world-compelling plans and policies of the "wizard" unfolded and shaped themselves into the General Motors Co., the peril to the trade has been plain to all who wished to see and has been growing increasingly acute. The plans and policies were dreamlike—they constituted a beautiful bubble and the blowing of it, accompanied by admirable audacity and the music of the stock ticker, made the world wonder and caused fools to rush in where angels feared to tread.

The Motor World was among those quick to foresee the result. As the Napoleonic movement to conquer the world progressed, the Motor World had frequent occasion to turn the light on the would-be conqueror and his movements. There were not a few who viewed the illumination in the light of opposition. But it was nothing of the sort. It seems to us a duty of trade journals to point out perils and pitfalls, and we performed that duty. In the light of what has happened to the "wizard" and his plans, it is timely to remark the fact.

The attempt to over-capitalize prosperity and to make merchandizing and stock jobbing mix has had its natural result. The clearing of the situation which now will follow will prove of benefit to and enhance the stability of every department of the industry.

## Signals that Make for Safety.

Despite laws passed and efforts to pass laws prohibiting the employment of so-called discordant or unusual alarm signals on motor cars and limiting motorists to the use of the time-honored bulb horn, it is becoming increasingly evident that the horn is inadequate for all purposes. It has been abundantly demonstrated that it is a short range signal, and that however sufficient it may be to warn pedestrians and horsemen, its sound does not carry far enough or is not penetrating enough to warn the drivers of other motor cars in whose ears there is the hum of moving machinery.

As, so far as the relation of motorists one to the other is concerned, the chief element of danger lies in approaching crossings and turns, this safety rests in signals that will notify each of them sufficiently far in advance to permit them to guard against the broadside and head-on collisions of which the wonder is there are not more. The number of narrow escapes from accidents of the sort are unpleasantly numerous, as nearly every motorist is well aware.

The horn may serve or may be made to serve in cities, but on the open road its service is limited and is governed largely by circumstances. Certainly it cannot be relied on to meet all conditions. The fact that not a few motorists who are mindful of public sentiment have equipped their cars with both a horn and a more powerful alarm, one for city use, the other for service in the country, is unmistakable evidence of their experiences and opinions; the recent production of a device in which a horn and a more penetrating alarm are contained in one instrument and which permits either to be sounded at will, constitutes evidence of the same nature.

There is real need of long range signals, and though their noises may jar harshly or strangely on the public ear, it is chiefly because that ear is unaccustomed to them. They are a contribution to public safety. The complaints regarding them and the objection to their use arises chiefly from their abuse—to the practice of unthinking or inconsiderate people who sound them too often or too long.

In an editorial made up of twelve stanzas and which, significantly or otherwise, appears directly opposite a heavily-soldered article entitled "Jarred Editorial Brains," our esteemed contemporary, The Automobile, takes the A. A. A. to task for requiring that short distance records, to obtain official acceptance, shall be timed by automatic apparatus and for not requiring that all speed events of whatever distance shall be similarly timed. The Automobile works itself into a cold, clammy perspiration in discussing the subject. It finds in the A. A. A. attitude a likeness to a judge assisting a murderer to commit crime, a likeness to a bull used in a slaughter house to lure other cattle to slaughter, a likeness of the public being treated as cattle. Indeed, our contemporary's similes are grewsome

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enough to make flesh creep and they absolutely convict the A. A. A. contest board of something or other. When that body declares there would be little racing if it required automatic timing for all races, wherever held, it merely is talking common sense and proving that it is promoting sport on a reasonable basis. But what's a little thing like that compared with that judge who promoted murder or that nasty bull that leads other cattle to slaughter,

Despite the recent tragic accident on Pelham Parkway, New York, in which one occupant of a buggy was killed and two others injured when it was "sideswiped" and overturned by an automobile, the police remain strangely indifferent to the failure of drivers of horse-drawn vehicles to display lights after nightfall, which failure is a direct contribution to such accidents, if not to the one in question. Within a distance of less than two miles on Pelham Parkway there were counted on Sunday last 20 buggies, seven of which displayed no lights whatever and on five of the others the lamps were so placed that the red bullseye could not be seen from the rear. Two policemen whose attention was called to the state of affairs remained blind and dumb. The laxity in the enforcement of such life-saving laws is the underlying cause of most accidents. If the police authorities were as active in applying the obvious preventives, there would be fewer "sensations" and less work for them to do. The arrest of a few of the horsemen who do not display or who improperly display the lights required by law would serve those purposes and save them from their own folly.

The wonder that there are not more head-on collisions between automobiles is exceeded only by the number of drivers who apparently give no thought to the sounding of an alarm when approaching even the blindest curve. During a recent tour of nearly 1,000 miles there were met but three motorists who signaled their presence near such danger points. On two occasions during the same outing the narrowest sort of escapes were had at such places, serious accident being averted only because one car was run into the ditch and at that touched the heedless on-comer. Possibly some day it may dawn on more motorists that "careful and prudent" driving entails more than regard for the speed limit.

## COMING EVENTS

September 15, Oklahoma City, Okla.—Oklahoma Automobile Association's hill climb.

September 16, Algonquin, Ill.—Chicago Motor Club's fifth annual hill climb.

September 17, Syracuse, N. Y.—Automobile Club of Syracuse-Syracuse Automobile Dealers' Association joint race meet at fair grounds track.

September 17, Newark, N. J.—New Jersey Automobile and Motor Club's sociability run.

September 17, Toledo, O.—Toledo Fair Grounds Association's race meet.

September 17-18, Philadelphia, Pa.—Automobile Club of Philadelphia sociability run.

September 18, Los Angeles, Cal.—Annual road race up Mount Baldy.

September 18-20, Elmira, N. Y.—Automobile races at Tompkins county fair.

September 20-22, Louisville, Ky.—Louisville Automobile Club's annual reliability and endurance run.

September 24, Narbeth, Pa.—Norristown Automobile Club's race meet.

September 26-29, St. Louis, Mo.—Third annual national good roads convention.

September 30-October 3, Minneapolis, Minn.—Automobile Club of Minneapolis third endurance run.

October 1, Springfield, Ill.—Automobile races at Illinois State Fair.

October 1, Long Island Motor Parkway, N. Y.—Motor Parkway Sweepstakes.

October 1, Peoria, Ill.—Automobile races at state fair.

October 1, Mineola, L. I.—Sixth annual Vanderbilt Cup race on Long Island Motor Parkway, under the auspices of the Motor Cups Holding Co.

October 8, Richmond, Va.—Automobile races at state fair grounds.

October 6-7, Chicago, Ill.—Chicago Automobile Club-Chicago Athletic Association inter-club run for Myers trophy.

October 6-8, Santa Anna, Cal.—Automobile meet.

October 8, Spokane, Wash.—Automobile meet at Interstate Fair.

October 8, Philadelphia, Pa.—Quaker City Motor Club's third annual 200 miles road race in Fairmount Park.

October 10-12, Amarillo, Tex.—Panhandle Fair Association's annual race meet.

October 10-15, Hot Springs, Ark.—Automobile races at Arkansas State Fair.

October 15, Mineola, L. I.—Motor Cups Holding Co., 278 miles international road race on Motor Parkway, for the Grand Prize of the Automobile Club of America.

October 14-18, Washington, D. C.—Second annual Washington "Post" tour to Richmond, Va., and return.

October 15, Chicago, Ill.—Chicago Motor Club's reliability contest.

October 15-16, Philadelphia, Pa.—Automobile Club of Philadelphia fall tour, Atlantic City and return.

October 21-22, Boston, Mass.—Boston "American" commercial vehicle contest.

October 24, Lawrence, Mass.—Automobile races.

October 27-29, Dallas, Tex.—Dallas Automobile Club's race meet.

November 3-5, Atlanta, Ga.—Atlanta Automobile Association's fall meet on speedway.

November 5, Los Angeles, Cal.—Los Angeles-Phoenix (Ariz.) desert road race.

November 5-6, New Orleans, La.—Automobile meet.

November 10-13, San Antonio, Texas—San Antonio Automobile Club's races at International Fair grounds

November 22-26, Lake Charles, La.—Louisiana Fair Association's race meet.

November 24, Redlands, Cal.—Mile High Hill Climb Association's contest.

November 24, Santa Monica, Cal.—Southern California Automobile Dealers' Association's annual road race; 200 miles.

November 24, Savannah, Ga.—Savannah Automobile Club's road race.

December 3-18, Paris, France—French Automobile Manufacturers' Salon in Grand Palais.

December 25-26, Los Angeles, Cal.—Races at Motordrome.

January 7-14, New York City—Association of Licensed Automobile Manufacturers eleventh annual show in Madison Square Garden. Pleasure cars and accessories.

January 16-21, New York City—Association of Licensed Automobile Manufacturers eleventh annual show in Madison Square Garden. Second week devoted to commercial vehicles.

January 28-February 4, Chicago, Ill.—National Association of Automobile Manufacturers' tenth annual national show in Coliseum. Pleasure cars and accessories only.

February 6-11, Chicago, Ill.—National Association of Automobile Manufacturers' tenth national show in Coliseum. Second week devoted to pleasure and commercial cars, motorcycles and accessories.

March 4-11, Boston, Mass.—Boston Automobile Dealers' Association's annual show in Mechanics building.

March 15-18, Louisville, Ky.—Louisville Automobile Dealers' Association's annual show in First Regiment Armory.

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## "NAPOLEONIZING" THE INDUSTRY

**Remarkable Efforts and Effects Employed in a Remarkable Campaign—Audacity of the World-Compeller.**

To say that every thinking person identified with the automobile industry is breathing more freely now that the banking interests have stepped in and placed a checkrein on W. C. Durant, the prime mover and directing genius of the General Motors Co., is but to describe mildly the feeling that exists.

The feeling is not one of satisfaction that discomfiture or embarrassment has overtaken Durant and his $60,000,000 venture, but rather that an element of real peril to the entire industry has been circumvented and chastened. There has been no real antagonism to Durant or his companies, but the methods they have pursued were such that should disaster befall them, practically the whole structure of the business must be seriously affected. The ultimate effects of these methods long have been plain to all who cared to see or who tried to see, and those who placed themselves in this category long since discounted the influence they could not fail to exert, although necessarily they have felt the influence in greater or less degree.

Having a bit and checkrein placed between his teeth must saw sorely on the mouth of Durant himself. In characteristic fashion, he fought hard to prevent it. According to report, when he applied to the Detroit banks for the big loan which had become so necessary to his welfare he refused their demand for the collateral which they specified, and practically bid them "go hang." He hurried to New York and here practically the same securities were demanded by the banks, but again Durant put on his bold front and refused to accede to the terms. But the situation was such that the bold front did not prove of avail. Circumstances had altered cases and he was forced to return and surrender. He now is in the toils of Wall Street, so to speak, and must do its bidding.

Durant himself probably is the most interesting and in some respects the shrewdest person the automobile industry has developed. Short and slight of stature, dark-skinned and of not unpleasant features, his appearance by no means betokens the power that is within him and which he wielded to the point of over-reaching himself. The very audacity of the man has been one of his most compelling forces. The manner in which he, a seeker for favor, bearded the bankers of two cities in their dens and attempted almost to dictate the terms of the favor, is a fair illustration of his audacity. Rarely has he been in wholehearted agreement with his fellow-members of the Association of Licensed Automobile Manufacturers, and another typical instance of his "front," which also reflected the world-conquering ideas which he harbored, cropped out at a gathering of A. L. A. M. members.

"I'll be in position to tell you how many cars you can build each year and name the prices at which you shall sell them," is the prophetic and taunting assertion with which Durant is credited as having made on that occasion—a prophecy which, however, sadly has miscarried.

That he really believed what he said is not susceptible to much doubt, as it is only four or five months since he advertised that in 1911 the General Motors Co. would produce 101,000 cars and in the following year, 200,000 of them.

Durant believed in publicity but not in advertising; that is, the sort of advertising that must be paid for. When he did advertise it usually was to gain the favor of someone or to serve purposes of his own. It was his habit to declare that there was no necessity for buying advertising space.

"Do something spectacular and, damn 'em, the papers will have to notice you," is the utterance to which he more than once gave voice, using the mildest extract from a full and forcible vocabulary on which he is prone to draw freely.

He himself frequently "did the spectacular," and the racing campaign which he instituted was but another means of doing the same thing and getting advertising without paying for it. The Buick racing team toured the country. Its managers promoted race meets in scores of small cities and the Buick team came along with its traveling machine shop and highly refined "stock" cars, and rarely failed to capture everything at these made-to-order meetings. The Buick car thus obtained reams of free advertising and the public was none the wiser.

Durant himself is a product of the carriage industry, in which by more or less original methods he made millions. In Flint, Mich., he turned out light buggies in enormous quantities and sold them in equally large volumes at $1 profit on each vehicle to jobbers, mail order houses and others who posed as buggy manufacturers. With the profits, and with larger ends in view, he came to New York and in the Wall Street district set up an "investment company" as an annex to his carriage interests. There Durant spent much of his time, reaping, it is said, a large crop of experience in the rise and fall of stocks, the methods of attempting "corners" and the ways of Wall Street generally. Meanwhile, however, he had become interested in automobiles and, assisted by a more or less mysterious motor which developed power out of all proportions to its dimensions, the Buick car attained prominence, and by purchase of the Pope-Robinson license he gained entry to the Association of Licensed Automobile Manufacturers, to which periodically he contributed spectacular features.

As the business expanded, Durant expanded with it. Having practically the only low-priced car in the A. L. A. M., the Buick was much in demand by licensed agents, and its continued rise thus was made easier. When the industry was attaining boom proportions Durant again heard the whirr of the stock ticker and seized the opportunity, and a couple of years ago the first was heard of his merger plans. Originally they proposed an issue of stock at $1 per share, a sum well within the purse of the country bank clerk, the preacher, the widow and the orphan. In the light of today it appears that had this plan been carried out an enormous "clean-up" must have been possible. But apparently Durant figured that it would be as easy to get $100 per share as $1, and that the larger sum would carry more weight in Wall Street, and wherever else stocks are traded in. The General Motors Co. was the result. Of course the Buick company was its nucleus, and to it were added several other well-known and going concerns, and many others which were not so well known and which merely thought they were going. At all times Durant's faith in himself was admirable. When his wisdom in acquiring a lot of "lame ducks" was questioned, he declared that lameness was the fault of the mismanagement and that under proper direction—his own—the lame could be made first to walk upright and then to gallop to the goal of prosperity. Some of the General Motors purchases, however, proved very lame, indeed, and not even a near-Napoleon could make them acquire more than a hobble. The chief purposes they served was in lengthening the General Motors' list of "properties" designed for impressing prospective investors.

It quickly was made plain that General Motors was a "one-man institution." Durant was its general and he was his own colonel, his own major and his own lieutenant. He dominated it from top and bottom and brooked no interference. He is a prodigious worker and the wonder is how he attended to so many details, great and small, and lived through it all. He kept one eye on his factories and another on the stock ticker, and the while he dreamed of world conquests. When a Detroit press agent-biographer caused a huge grin to spread throughout the trade by describing Durant as a "wizard" and as "the Napoleon of the automobile industry," he did not overdraw a picture that had been etched in one by no means small imagination. That Durant saw himself the Napoleon of the industry scarcely admits of doubt. His dream of producing 200,000 cars per year and of dictating terms to his competitors serves as abundant proof. He

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dreamed of making every part that enters into an automobile, from nuts and bolts and tires to motors and chassis, and even of selling them to rival automobile manufacturers. He fancied that he could produce them in such quantities and at such prices that few, if any, of the parts makers could compete with him, and they must needs shut up shop or turn elsewhere.

Pending the realization of this dream, he made the most of his position as an enormous buyer. He sought to fix the prices of those who would sell goods to him —to buy at his own price. It was his habit to declare that he himself would manufacture the goods before he would pay the asked price, and he would say it in such a forceful, dominant, convincing manner that no weak brother could stand before him. Unhappy the milk-and-water salesman who encountered Durant!

Branches, some of them housed in specially-built structures, had been established in many unusual localities, apparently with an eye to rendering agents unnecessary, and the Buick plant in Flint, Mich., had taken on the appearance almost of the realization of an overnight dream. It had expanded at such a rate that it employed more than 15,000 workmen. The town was not large enough to contain them and their families. It was necessary to pitch hundreds of tents to shelter them. There seemed almost as many tents as there were houses. The sight was one that made eyes bulge and one not easily forgotten by the visitor to Flint. The census, taken before the skyrocket reached its height, gives an idea of what Durant activity had done for the town. The census figures show that its population had increased 196 per cent. And while tents were being erected in Flint, Durant was busy with even more heroic plans in Detroit. There he meant to build a gigantic factory in which parts of all sorts would be made by the million, and which would bring woe to all who once had sought to dictate prices to the near-Napoleon. He at least obtained the right to the necessary land for this big factory.

Despite his many other activities, Durant at no time lost sight of the stock ticker. He was bent on having the dear public share his prosperity; he believed that an exchange of the public's money for his stock certificates was a fair exchange. Opinions differ as to whether he was intent on a "clean-up" or was carried away by a lust for power that made him see in General Motors a second Standard Oil, with himself as the dominating over-lord—as not merely a captain of industry but the lieutenant-general of it and one to whose greatness the world must pay tribute and bear homage. There is abundant evidence that he loves the goddess of chance, but whatever his innermost thoughts, not even his worst enemy will accuse Durant of being a "piker." He did large things in a large way, and sought only large returns, and did not count the final cost of such doings. His supreme faith in himself appears to have befogged his view.

The failure of General Motors' shares to reach the value he had set on them appears to have been his sorest point, and that it brought many drafts on his choicest vocabulary and caused him much gnashing of teeth readily is conceivable. The stock market refused to respond to his best and most determined and most spectacular efforts.

When his exasperation first became pronounced, he had himself designated a repository for the stock that he might better manipulate it. Large dividends—in certificates—had been declared; Durant had refused to pay overdue Selden royalty and had prophesied bombastically he would force the Selden group to "eat out of his hand," but when his bluff was called he quickly paid and made his peace; he had sent attorneys to Washington to oppose the rest of the industry by favoring a reduction in the import duty on automobiles; these and other spectacular things had he done, and they served to obtain wide publicity for Durant and Buick and General Motors. They all suggested "big money" to and for the public if it would but wander into the stock market. When his own best efforts proved of no avail, Durant caused to be organized the General Motors Securities Co., whose purpose was to "boost the stock." Wall Street experts were employed and they did their level best. Their literature made the long established railroad and industrial securities, not excepting Standard Oil, look like green goods, and mere imitations of the real thing; it made appear that any person who purchased other than General Motors, with its prodigious "earning power" of 34 per cent., was in need of a keeper.

Durant himself was not idle; his eye was still on the ticker tape and he was doing his part to make it hum and to assist his Securities company. He had himself interviewed by the financial publications; he caused to be printed confidential information giving the payment of Selden royalties which showed Buick to be the biggest payer and therefore the biggest producer; several other General Motors' properties were high up on the list; others, the "lame ducks," were nowhere and the inclusion of these latter seems to have been an almost fatal error. When applied, the law of general average indicated that General Motors was topheavy and that a few producers were being employed as stalking horses for a lot of non-producers. The owls of Wall Street are too wise not to grasp the import of such things. They grasped it, of course, and as a result the General Motors Securities Co. made no greater progress in "boosting the price" than the "wizard" himself had done.

On the face of things, it seems that it was "Napoleon" Durant's effort to bolster this last grand assault to carry the Public that caused him to over-reach himself and forced him at last to bow his head to the men who have money to loan at high rates. Having let the world of investors, and others, know that the Buick company was by far the largest producer of motor cars, and apparently having proved it by the publication of confidential statistics, it was necessary to keep it at the head of the list; the slightest recession must prove fatal to the stock market campaign. Accordingly, the tented city of Flint was kept humming. Buick cars were produced without regard to the demand, which already had more than come abreast of the supply. There were no orders for them, but they were shipped, hundreds or thousands of them, to the Buick branches; others were stored nearer to the Buick factory. From 5,000 to 9,000 is the estimate of the Buick overstock. Royalty is paid to the Association of Licensed Automobile Manufacturers only on cars that are sold, and it was paid on these cars even though they were not sold; bear that in mind. Perhaps it is too much to say that the cars were produced to impress the stock market, but there is every indication that they were made to appear as sales for no other purpose. In itself the amount of the royalty is a mere drop in the bucket, but the sum represented by the Buick overstock is so great that a child can understand why Durant was forced to cry for help and to pay a stiff price to get it.

Whatever may be said of him, the little "wizard" kept up his front and had his nerve with him at all times, and, in the figurative sense, "died game." His wand may have been bent or broken and lost some of its magic, but his audaciousness in the final effort to keep up appearances of undiminished prosperity was so astounding that, however unwise, it cannot well fail to provoke an admiring glance even from those who have felt the effects of its expensiveness.

The population of Flint, Mich., has shrunken since the census enumerators called a few months ago; there are many tents without occupants; a huge parts factory remains unbuilt in Detroit; the dream of producing 101,000 General Motors cars in 1911, or even 100,000 of them, has vanished into thin air; a Securities company has shut up shop; a hand out of which an industry was to be invited to feed and a head which contained visions of world-conquests have other things to occupy them, and if a near-Napoleon has not met his Waterloo, he at least knows the location of the financial Elba.

The whole career of General Motors and its "wizard" is an illuminating example of the effects of over-capitalizing prosperity and of attempting to combine stock jobbing with the manufacture of merchandise.

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## NEW DYNAMOMETER FOR A. C. A.

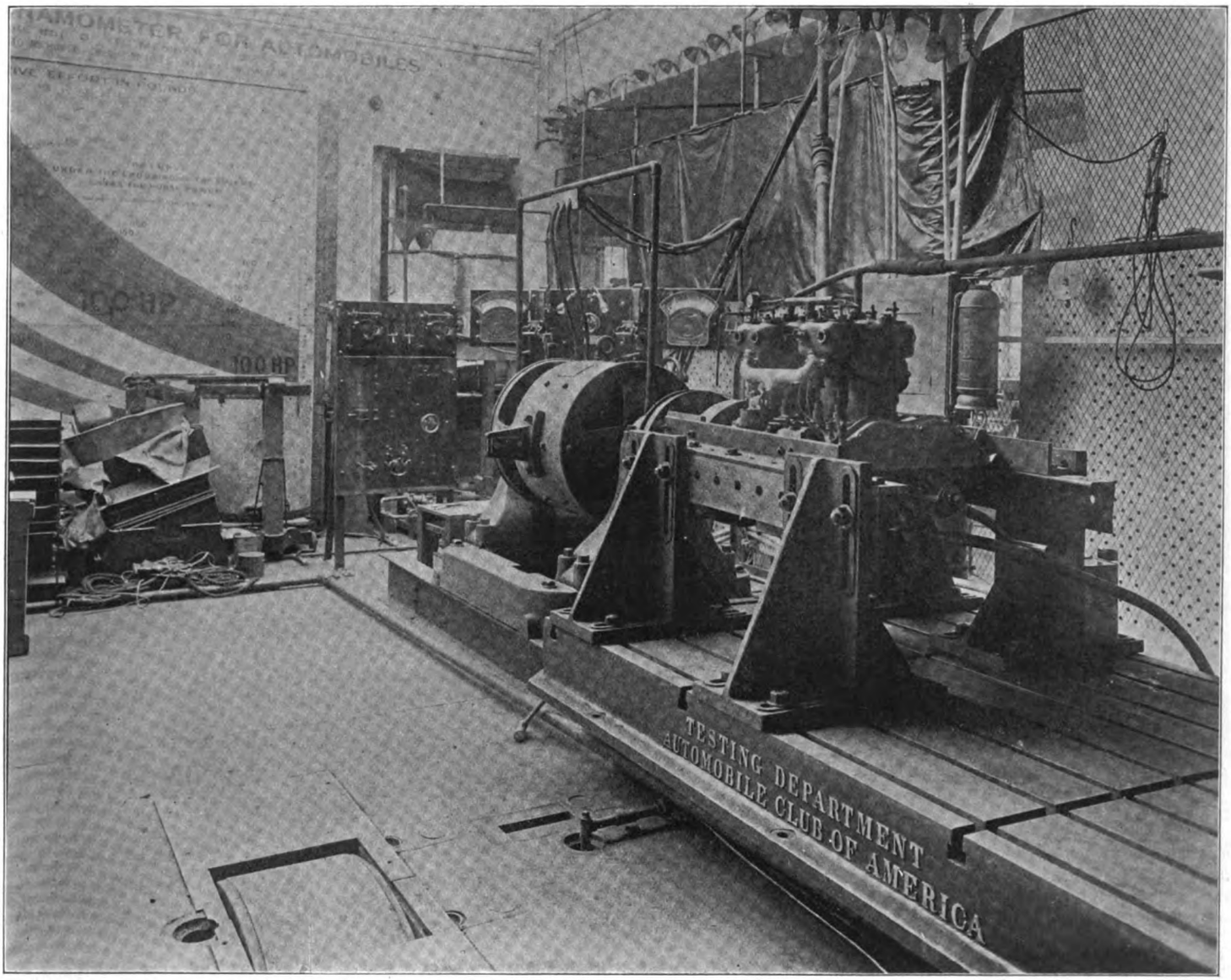
### For Testing Engines Instead of Rear Wheel Horsepower—Ingenious System for Weighing the Fuel.

Supplementing if not supplanting the highly elaborate and complicated dynamometer installation which the Automobile Club of America set up some two years ago for testing of the horsepower actually delivered at the rear wheels of cars, a new dynamometer has been erected in the same room on the eighth floor, for the purpose of testing motors alone or motors in combination with change gear mechanism. The new system gives promise of much more active use than the older one, which latter, despite its remarkable ingenuity and ambitious completeness, has passed into idleness because of seeming frailties in its operation and the difficulties of providing truly standard test conditions where slippage of tires on the roller drums and other variable elements are concerned.

As the main element of the new system, which is of the electric type, a Diehl type K motor is employed, the motor being hung in a swinging cradle on ball bearings and in effect being a dynamo when operated by the gasolene engine that is under test. The motor, because of its special windings, has capacity to carry a heavy load at practically any speed, as would be necessary in such variations as the testing of one motor developing 50 horsepower at 1,500 r.p.m. and subsequently another developing the same power at 600 r.p.m.

The winding gives interpoles in series with the armature to prevent sparking and to afford a wide range of flexibility. The fields are controlled independently of the armature by Edison lighting current or, should the latter develop serious fluctuations in voltage, from a constant voltage generator set in the building, driven by a motor operating on Edison current. This independent control of the fields permits the proportioning of the load according to the desired speed for the gasolene engine under test. Further means of varying the load are provided by a water barrel rheostat for the armature current, with an electrode plate that may be raised or lowered in the barrel to give greater or less resistance through the increased or diminished distance of water between it and the return electrode at the barrel's bottom.

In line with the shaft of the electric mechanism is a bed plate, 5 x 9 feet, with standards and saddle angles for the support of whatever automobile, motor boat or aeroplane engine is to be tested. The length of the bed plate is such that the transmission or change gear system for any given engine also may be accommodated, interposed between the gasolene engine and the electric dynamometer if the




ELECTRIC DYNAMOMETER SYSTEM OF THE A. C. A. FOR TESTING GASOLENE ENGINES

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horsepower that is delivered through the change gear is sought. It is expected, however, that the majority of tests will relate solely to the power delivery of the engine itself.

When the shaft of the gasolene engine has been centered with that of the dynamometer, the connection between the two is effected through a flexible double laced pin coupling, which is provided with a sleeve bearing for the gasolene engine side of the coupling so that only a small proportion of the coupling weight is borne by the engine shaft.

After the coupling up, outside current may be thrown into the electric motor, which in turn will revolve the shaft of the gasolene engine and "crank" it until it starts on its own power, after which the outside current is shut off from the dynamometer armature. As the engine causes the armature of the dynamometer to revolve, a turning torque or pull is exercised on the field frame or cradle, and as the latter is mounted in ball bearings it is free to exert a weight or pressure against a Fairbanks platform scale through a horizontally extending arm rigid with the field frame. The scale shows the turning torque in pounds, the accurate measure being taken on the beam of the scale. Connecting the dynamometer arm and the standard resting on the weighing platform, however, there is a spring tension dial scale, which gives a fairly accurate indication of the torque pressure in pounds, although the pull through this spring scale and through the standard on which it hangs, to the platform of the Fairbanks is more accurately measured or checked up on the slide beam of the latter.

Means thus being provided for weighing the torque or pull of the motor in pounds, a Veeder counter is mounted at the end of the dynamometer shaft for counting the revolutions per minute. The counter has a snap trigger for throwing in or out of engagement at the beginning or end of a specified counting period. In addition to the counter, a belt driven Warner magnetic tachometer, showing readings in r.p.m., also is mounted, for indicating the engine speed.

Exhaust gas from the engine under test is carried from the exhaust manifold through a flexible connection to a generous expansion chamber resting on the floor and thence upward through a large pipe to the outside air. The connections for the exhaust manifold have telescoping joints and will take anything up to 4 inches in diameter. Cold water jets may be thrown into the exhaust line for cooling the gas, if desired. For the cooling of the engine cylinders, a large tank of water is provided, the circulation being effected by the water pump of the engine itself. The piping from the engine to the tank both ways is arranged to avoid the formation of steam pockets. A thermometer on the water tank shows the temperature of the cooling water as it circulates, and should it become too warm the temperature may be reduced by a controlled flow of cold water into the tank from a water supply pipe.

In connection with the dynamometer system, which was installed under the direction of H. Chase, a Cornell man, and in the operation of which he is assisted by Professor J. C. Riley, of the Massachusetts Institute of Technology, a very complete and ingenious equipment is maintained for the measuring of the fuel. The fuel is measured by weight, on a scale having a beam with divisions in tenths of pounds. On the platform of the scale is the fuel tank, with flexible connections to the carburetter. As the fuel is consumed, the gross weight of the tank and its fuel becomes less, and the difference in weight yields the net weight of the fuel consumed.

Not only is it possible to measure the fuel used during any given period of time, but it also is possible, through the provision of an electric contact breaker on the beam of the scale, automatically to measure the exact time for the consumption of any given quantity of fuel. If, for instance, the gross weight of the fuel tank and its contents be 9 pounds, the slide weight on the beam may be set at 48 pounds and a split second stop started. Until the fuel is used and the weight decreases to 49 pounds, the beam of the scale remains up and keeps closed an electrical circuit, but when 48 pounds is reached the beam drops to balance, breaking the circuit and causing the electrical operation of a plunger on the stop watch button, the arrested hand of the watch showing the exact number of seconds and fractions that intervened during the consumption of one pound of fuel. As the stop watch has a continuing hand and a stop hand, which latter may be released to resume its travel with the continuing hand, it is possible to obtain a series of consecutive readings from pound to pound, the slide weight on the scale being moved down each time.

For recording and graphically portraying the results of the tests, special record forms and plotting sheets have been devised. In addition to the tabular record form for entering the figures of the test, there is a note sheet for entering the facts concerning the motor and whatever written observations may suggest themselves, and plotting sheets for showing the relation of the torque and horsepower curves at different speeds and for plotting the fuel consumption. With this equipment of record forms, practically no essential detail of the test results is lost.

THE AUTOMOBILE CLUB OF AMERICA
TESTING LABORATORY

TEST OF

For details of test see Page ____ Note Sheet No. ____

Page ____
Log Sheet No. ____
Run No. ____ of Test No. ____
Date of Test ____

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Number of Observation | Time H M S | Speed Indicator | Current | Revolutions per Minute | Dynamometer Force in pounds at ___ R. radius | Brake Horsepower of Engine | Armature Voltage | Armature Current | Armature Kilowatts | Temperature of Jacket Inlet Fahrenheit | Temperature of Jacket Outlet Fahrenheit | Temperature of Room Fahrenheit | | | Time of Fuel Weighing H M S | Weight of Fuel Used in Grammes Pounds | Weight of Fuel per Hour Pounds | Weight of Fuel per Brake Horsepower-Hour Pounds | |
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TABULAR RECORD SHEET FORM USED IN CONNECTION WITH A. C. A. DYNAMOMETER TESTS

### Shows Modern Garage Designs.

With the large and steadily increasing additions to the army of cars in use, the question of storage is a vital one both to the owner and the garage keeper. If the owner be a suburbanite he undoubtedly will wish to keep his car in a private garage near to his residence, where it will be instantly available in emergencies. Furthermore, if he desires to reduce maintenance by taking care of his machine a private garage will help considerably. For the public garageman who contemplates the erection of a new establishment, it is essential that he familiarize himself with the latest practices of construction if he would secure the advantages of low insurance rates, maximum return on storage space and elimination of waste in the handling of gasolene, oils and repair work. To meet the needs of both the private owner and the public garage man, the Radford Architectural Co., New York City, has issued a book containing 55 designs of private and public garages and much valuable text matter relating to their construction and equipment. The work is profusely illustrated, and is particularly valuable in pointing out how expensive mistakes in garage building may be avoided. It retails for $1.

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## DISSOLVES GLIDDEN INJUNCTION

### Court Decides A. A. A. Alone Has Power Over the Trophy—Chalmers is Now in Full Possession.

The Chalmers Motor Co. now is in possession of the Glidden trophy, the temporary injunction restraining its delivery, which was obtained by H. O. Smith, president of the Premier Motor Mfg. Co., having been dissolved. The decision was rendered on Thursday last, 8th inst., by Judge Putnam, sitting in the New York Supreme Court in Brooklyn, N. Y. He holds that no evidence of fraud having been shown, the decisions of the rules and officials governing such sporting contests are not subject to judicial reviews—a decision in line with every other known effort to have the courts take cognizance of such affairs. The action brought by Mr. Smith was filed against the American Automobile Association and its contest board and the Chalmers Motor Co., and sought to restrain the board's reversal of the referee's award of the trophy to the Premier entry. In his decision, Judge Putnam reviews the case and says:

"This is a motion to continue the temporary order of July 23d, restraining the delivery of the 1910 Glidden Trophy. The referee, Mr. A. H. Whiting, decided in favor of plaintiff's car. The contest board, however, sustained an appeal and awarded the trophy to the Chalmers Motor Company. Plaintiff charges that this action of the contest board was unwarranted, being against the association rules, contrary to the terms and conditions under which the contest took place, and a breach of the trust created by the donor's deed of gift. This suit seeks to set aside the decision of the contest board and to reinstate plaintiff as winner.

"In 1905, Mr. Charles J. Glidden offered this trophy for yearly competition under the terms of a deed of gift to the American Automobile Association, providing for the adoption of rules to govern such contests. This was to be a reliability run, since called the 'Glidden Tour.' The deed of gift (as later modified) declared that this trophy should be competed for annually by members of the association, and that the winner should hold the trophy until won by another. The A. A. A. had adopted various rules through its contest board, to which has been delegated the regulation of such competitions. In March, 1910, the contest board issued advance copies of a set of rules, called the 1910 Contest Rules, intended to govern the various competitions to be conducted under sanctions issued by that board on behalf of the association. These were subdivided to apply to many different contests, including reliability tests.

"The purpose of the Glidden Tour is to try out and test the endurance of what manufacturers call a 'stock car,' that is, a car such as is regularly sold to purchasers, and not one specially equipped for a contest. In the rules for 1910, the entrant was required to file a stock car certificate of description, in which the details of the car were fully set forth. A technical committee was to make a preliminary inspection of the stock car to determine if it corresponded with the stock car certificate. Various provisions were made as to the examination and report by this technical committee, as well as regulating the penalties in the contest after the cars should have entered upon the tour.

"Plaintiff was the entrant in the 1910 contest of a Premier car. In the certificate of description was mentioned a hand oil pump and oil tank. This car was duly examined by the technical committee and declared to be eligible. During the tour, a protest was made, upon the claim that this hand-pump to inject oil into the crank-case of the engine of the Premier car was not a part of the regular stock equipment. At the conclusion of the tour, in which plaintiff's car showed the best score, this protest was considered by the referee, who deferred action until he had received a special report from one of the technical committee who had visited the factory of the Premier Motor Manufacturing Company. Subsequently, the referee overruled the protest and declared plaintiff's car the winner. The Chalmers Motor Company, who had entered a car in the name of the defendant George W. Dunham, appealed from this decision to the contest board, which, after notification to the plaintiff, took up the appeal on July 21st, and after receiving proofs by affidavit and hearing arguments, on July 22d, sustained the appeal of the Chalmers Motor Company, on the ground that there was not sufficient evidence to prove that the auxiliary oil tank and pump equipment was stock equipment, so that the Premier company had failed to furnish evidence sufficient to establish the stock status of its cars entered in respect to this lubricating equipment, and for that reason the Premier cars were disqualified.

"It is a primary principle of all sporting contests that rules must be made by the bodies conducting them, and that those regularly appointed must decide who wins. The entrants in such competition, as a matter of fairness, agree to abide by the decisions of the umpires, referees, or boards having jurisdiction, as the rules may provide. Especially is this true in a contest where the points of eligibility are highly technical, and the association is composed of experts who themselves are well fitted to judge. Before a dissatisfied entrant can ask the courts to interfere and set aside the rulings of a sport-governing body, there must ordinarily be evidence of fraud, either by a competitor, or by the official making the decision. The track judges, umpires, referees, executive committees and governing boards of such associations are supreme within themselves when acting under their recognized authority. If they give the parties concerned a fair opportunity to be heard, and there is evidence on which their findings can be based, their decisions, in the absence of fraud, are not subject to judicial review. Thus, Judge Gildersleeve, delivering an opinion reversing a special term order which granted an injunction in favor of a disqualified contestant at a race track, said:

"When the original contract was entered into, . . . the owner of the said colt, in effect, subscribed to the defendant's rules, and they are binding upon his successor. Those rules named the tribunal to which any dispute, that might arise out of the contract, should be submitted. That tribunal was the executive committee of the defendant corporation. They had jurisdiction of the cause of action alleged in the complaint herein, and it was the duty of the plaintiff to submit to their decision, (Corrigan v. Coney Island Jockey Club, 48 N. Y. St. Rep. 582, 586).

"These principles have been generally recognized. The fact that this trophy is of large value and that, although in the form of a sporting contest, the tour really affords a test of the endurance of a car, from which important financial consequences ensue, does not change the rule. Such consequences flow from many sporting contests, but these results do not give the court jurisdiction.

"The rules that courts of equity will interfere to secure the possession of valued objects having a sentimental interest to the owner comes under a different head of the jurisdiction. Plaintiff's proceeding, while nominally to gain possession of the trophy, is in reality to obtain a reversal of the present award, with a reinstatement of the Premier entry as the winner. Were jurisdiction entertained, proof would be naturally taken with respect to the equipment of the 1910 Premier cars from nearly all the large cities of the United States. On this motion, 73 affidavits from 26 cities have been submitted. Upon a hearing on the merits, even with the utmost diligence, such a mass of testimony from widely dispersed points might require several months for its completion. After decision rendered thereon, appeals would naturally follow, so that the final judicial ascertainment of the result of the 1910 Glidden Tour had in the meantime taken place. Heretofore, the law has declined this jurisdiction not based on those property rights usually cognizable by courts. To change now and hear the loser in court would also imperil the spirit and interest in all such contests.

"In the present case, the objections to the form of the appeal and to the proceedings before the contest board are largely technical. While in some respects informal, such proceedings do not appear to lack any substantial protection to all con-

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cerned. The high standing of the parties forbids the suggestion of fraud; in fact, upon the argument it was acknowledged that there was no fraud as to anyone involved. In the absence of fraud, the question for the court is not whether, passing primarily upon the evidence, it would have reached the same conclusion as that of the contest board, or whether their conclusion was reasonable or unreasonable, but simply and wholly whether the case before them was so bare of evidence to sustain the decision that no honest mind could reach the same result (People ex rel. Jackson v. New York Produce Exchange, 149 N. Y. 401, 414).

"No winner of this trophy has a right to hold it for more than one year, and its ownership remains in the American Automobile Association. There is, therefore, no necessity to impose the terms of a bond conditioned to conform to any future order of this court, as the association is a responsible defendant able to comply with any final decree.

"The temporary injunction is vacated and dissolved with costs."

### Indianapolis Outlines a $25,000 Race.

Right on the heels of the ringing down of the curtain for the season at the Indianapolis (Ind.) Motor Speedway comes the announcement of the ambitious plans of the management for next year, which will eclipse in scope all previous projects of the kind in the history of American motor racing. The opening meet of the season is scheduled for May 27th, when an international 500 miles race with $25,000 in prizes will be staged; if it occurs it will be the most valuable speed contest ever held. There will be ten cash prizes, commencing with $10,000, a fortune in itself for the winner, $5,000 to the second man and so on down to $50 for tenth place. Trophies also will be given to the first ten finishers. Cars to be eligible for this blue ribbon event must not exceed 600 cubic inches displacement, must weigh not less than 2,300 pounds and must have shown a speed of at least 70 miles an hour.

### Plan Christmas Races on Portola Course.

Since the Automobile Club of California practically has thrown the Portola race on the table by indefinitely postponing it, the San Francisco tradesmen are stepping into the breach in an effort to save it. At a conference of the leading dealers last week the matter was discussed and it was decided to lay plans for a race on Christmas Day over the Portola course. Twelve of the leading dealers signed an agreement to hold a roadrace on that day, so that while 'Frisco may not have her Portola this year the chances are bright that she will have a good road race of some sort. Leon T. Shettler is the leader of the movement, and has offered $500 towards a prize, provided the other dealers also chip in.

## MUNROE CAPTURES ENOS TROPHY

### Four Earn Clean Road Scores in Buffalo Contest and Technical Committee Decides Award—Four Days' Struggle.

Four days' traveling over 800 miles of give and take roads failing to evolve a winner in the Automobile Club of Buffalo's touring reliability contest on the 7th to 10th inst, the technical committee took a hand in the game when the cars completed the last day's run and required but a few hours to besmirch the four perfect scores as well as to add further penalties to the sheets of those already assessed.

When the mathematical session was over Charles F. Monroe, who drove a Maxwell runabout, stood highest, with a score of 995 points, having lost five points on the technical grill. He therefore was awarded the handsome trophy offered by Laurens Enos, president of the club. The trophy must be won three times to become the permanent property of the holder.

In addition to the trophy, which was a free-for-all award, there also were offered prizes to the class winners, and here again Monroe won, taking the prize in his class, the runabout division for cars costing $1,201-$1,600. The other class winners were the following: Runabouts, $800 and under, A. G. Schoenthal, Maxwell; runabouts, $801-$1,200, H. Tate, Hudson; runabouts, $1,601 and over, H. A. Bauer, Oakland; touring cars, $1,601 and over, A. Gallatin, Pullman; touring cars, $1,201-$1,600, Louis Engel, Cartercar. All of the twelve cars which started finished.

Buffalo was the starting and finishing point of each day's run, the routes being through different territory. At 6:30 Wednesday morning the first car was checked out for the run to Rochester and return, 195.8 miles. Penalties were inflicted for mechanical troubles only, leaving the cars free to make any speed they desired without penalty, although running schedules were laid out for each class. When the cars checked in at Buffalo for the night five had been penalized—Schoenthal's Maxwell, Richardson's Oakland, Haycock's Reo and Kelley and Schaun's Regals.

Salamanca was the turning point of Thursday's run, the mileage for the day being 200 miles, with roads harder than on the day before. Four fell from grace this day—Dull's Parry, Schaun's Regal, Schoenthal's Maxwell and Richardson's Oakland. The last three also lost points on the first day.

Although Friday's run of 206.4 miles was the longest of the series, most of the cars managed to keep well ahead of the schedule and check in early. Geneseo was the noon stop, and was reached via Tonawanda, Lockport and Holley. The return trip led through Springwater, Mount Morris and East Aurora. Again four cars suffered penalties, viz.: Dull's Parry, Schoenthal's Maxwell, Bauer's Oakland and Tate's Hudson.

Sliding up and down mud banks and fording creeks two feet deep was part of the proceedings on Saturday's run to Hornell and return, which was the hardest of all. When Buffalo was reached Saturday night only four cars—Gallatin's Pullman, Engel's Cartercar, Messler's Pullman and Monroe's Maxwell—had gone through the four days without penalization. They, however, were docked in the technical examination. Following are the final scores:

| Drivers and Cars. | Points. |
|---|---|
| Charles F. Monroe, Maxwell | 995 |
| H. Tate, Hudson | 991 |
| H. A. Bauer, Oakland | 968 |
| A. Gallatin, Pullman | 964 |
| Arthur Messler, Pullman | 964 |
| Louis Engel, Cartercar | 962 |
| P. R. Haycock, Reo | 952 |
| L. M. Dull, Parry | 933 |
| T. J. Kelley, Regal | 903 |
| F. J. Richardson, Oakland | 870 |
| A. G. Schoenthal, Maxwell | 857 |
| R. D. Schaun, Regal | 641 |

### Wildwood "In Bad" Over Prizes.

In abandoning its proposed Labor Day beach speed carnival at Wildwood, the North Wildwood (N. J.) Automobile Club probably did a wise thing and saved itself from humiliation, for there is much indignation toward it on the part of several tradesmen along Philadelphia's automobile row, who won trophies at the July 4th meet and never have received them. Frequent requests for the prizes have been met with the answer that there were no prizes to be had, and last week a searching investigation of the situation revealed a peculiar state of affairs which is not at all creditable to the club. The entry blanks stated that silver trophies would be awarded, and inasmuch as the contest was run under A. A. A. sanction and rules, it meant that the prizes must be ten times the amount of the entry fee or $50 in each case. There were thirteen prizes to be given, which at $50 each would cost $650. The club officials gave an order on a local jeweler for $300 to pay for the prizes and promptly relieved itself of all responsibility in the matter. Not so the contest committee, however, and when the delay in delivering the prizes was laid at its door, Chairman Keir promptly aired the whole affair and stated that he declined to buy any prizes unless the full amount due, $650, was forthcoming. The matter has been called to the attention of the A. A. A., which now is looking into the case.

### Will Drive Lancia in the Vanderbilt.

William Knipper, the well known racing driver, who was a member of the Chalmers team last year, is preparing to take the wheel again after a period of inactivity on account of illness. He has signed up to drive a Lancia in the Massapequa Sweepstakes in the Vanderbilt.

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## MILE DIRT RECORD BADLY MUSSED

### Upset Four Times at Minneapolis, Oldfield Finally Getting the Honor—Great Crowd Sees Good Sport.

For the second time in the same week Barney Oldfield in the Benz cracked the American "one mile circular dirt track record," at the state fair grounds, Minneapolis, Minn., on Saturday, 10th inst., and as the timing on this occasion was by electrical apparatus, in conformance with the contest rules, it is probable that he will be credited with it. The new figures are 49.25 seconds, and replace the mark of 50⅘ seconds made by Ralph DePalma with a Fiat on the same track a year ago lacking a day. Although DePalma was present on Saturday to defend his laurels he was unable to hold them, but he did succeed in bettering his old figures.

It was quite a gathering of the racing clans who visited the Flour City for the speedfest which was the feature of the closing day of the state fair, as in addition to Oldfield and DePalma, there were present, Chevrolet and Burman of the Buick camp, and Kerscher, Oldfield's handy man, as well as several other lesser lights. It was a very bad day for the mile record, for not once but six times was it knocked down and jumped on. Oldfield, of course, did the hardest jumping, but DePalma, Burman and even Kerscher all contributed a considerable share of the damage.

The trials, which were the most interesting number on the card, were called first, and each man was allowed two starts. DePalma with a "90" Fiat, who led off, blew a plug on the first attempt, and Kerscher in the Darracq followed. He surprised the crowd by circling the track in 50.29, and immediately after compressed these figures to 49.75. Bob Burman with a snub-nosed Marquette-Buick was clocked in 51.20, the first time, and on the second attempt he got down to 50.61. Then DePalma came out for another try and made a big strike, wiping out Kerscher's mark and replacing it with 49.35. This performance brought forth loud cheers from the crowd. Oldfield and the Benz came forth, however, and after a warm up Barney gave the signal. He streaked around in thrilling fashion, leaving clouds of dust in his wake, and was caught in 49.25, ten one-hundredths of a second better than DePalma's time. Oldfield took a second trial but blew a tire and slowed, but at that was clocked in 50.80, equalling the old record.

Honors were well distributed, all of the "big guns" winning one event, while Burman carried off two.

The Australian pursuit contest was run twice, and Burman captured it both times. In the first instalment, Chevrolet and Nyman, Hudson, got bad starts, and after Burman had won, the ludicrous sight was witnessed of Chevrolet, his mate, and Nyman protesting his victory. The race was re-run and Burman again overhauled the field at 9½ miles.

DePalma, Burman and Kerscher put up a pretty three-cornered battle in the five miles free-for-all. The Italian took the lead at the break and immediately started to make a runaway. For a time it seemed as if he would succeed, but in the second lap Burman found his stride and coming up strong passed DePalma, holding the lead for a lap. In the last lap DePalma took the lead again and opened a gap of 60 yards, which he maintained to the finish.

A big field came out for the free-for-all handicap, Oldfield in the Knox being on scratch. This was a sort of Elgin reunion, six of the pilots who participated in the national stock chassis carnival being on the line. Nevertheless they didn't get away with the cream and had to be content with the leavings, for Harford, a local man with a fleet Velie, showed a clean pair of heels to the bunch and never was overhauled. Oldfield was unable to catch the front division, and Monckmeier, Stayer, and Endicott, Cole, collected second and third money.

Although the track was very dusty no accidents occurred. The crowd was the largest ever present on the last day of the fair, the stands being filled to overflowing while the rail was lined with people several rows deep. Hundreds of cars were parked on the grounds. The summary:

Mile time trials—Oldfield, Benz, 49:25; DePalma, Fiat, 49:35; Kerscher, Darracq, 49:75; Burman, Buick, 50:61. American mile circular track record.

Five miles, stock chassis 161-230 cubic inches—Won by Burman, Buick; second, Frayer, Firestone; third, Endicott, Cole. Time, 5:11.36.

Ten miles, stock chassis 301-450 cubic inches—Won by Chevrolet, Marquette-Buick; second, Clarke, Cutting; third, Gelnaw, Falcar. Time, 9:28.66.

Australian pursuit, stock chassis under 231 cubic inches—Won by Burman, Buick. Distance, 9½ miles. Time, 9:22.90.

Five miles free-for-all—Won by DePalma, Fiat; second, Burman, Marquette-Buick; third, Kerscher, Darracq. Time, 4:29.

Five miles handicap, Minnesota cars only—Won by A. A. Hanson, Ford; second, M. R. Nyman, Hudson; third, Tom Hegland, Pullman. Time, 6:10.24.

Five miles handicap, free-for-all—Won by N. M. Harford, Velie; second, Monckmeier, Staver; third, Endicott, Cole. Time, 5:57.

Five miles, stock chassis 231-300 cubic inches—Won by Gelnaw, Falcar; second, Clarke, Cutting; third, Pearce, Falcar. Time, 5:29.08.

## DENVER OPENS ITS NEW SPEEDWAY

### One Race Constitutes the Card and 12,000 People Go Far to See it—Hall Makes a Runaway.

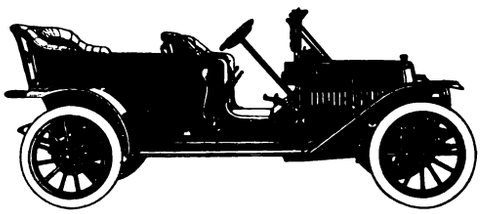
Twelve thousand people, the largest crowd that ever turned out for a local meet, saw Harry Ball drive an Apperson Jackrabbit to victory in the three hours inaugural race which formally opened the new Denver (Col.) Motor Speedway on Labor Day, 5th inst. Ball won by over 13 miles, reeling off 166⅔ miles with only one stop. Harold Brinker, Renault, who drove very consistently, was second with 153⅓ miles, and J. McDonald, in a Thomas Vanderbilt car, finished third, with 143⅓ miles to his credit. Four cars started for the $1,000 purse hung up, this being the only race on the card.

Ball and McDonald started off like hurricanes, while Brinker set a steady pace, refusing to be lured into brushes with the others. McDonald ran into trouble early, breaking a spring in the thirteenth lap, which cost him a lot of valuable time for replacement and put him hopelessly out of the running for first place. While he was off Ball clinched his grip on first by steadily pulling away from Brinker and eventually lapping him, which action he repeated several times in the course of the race. Emmett Johnson, Chalmers, developed trouble early, and after pluckily fighting a losing fight he eventually was forced to retire. When McDonald returned to the fray he burned things up at a great rate in an effort to recover his lost ground and registered the fastest lap of the day, 3:05 for 3⅓ miles. He could not overtake the other, however, and Ball retained the lead to the finish. Brinker was satisfied to hold a steady pace and had no trouble. Second place was his reward.

The meet was given by the Denver Motor Club. The track itself was built by the Denver Motor Speedway Association at Sable, on the Union Pacific line and seven miles east of Denver. The association leased a tract of land and laid out a 3⅓ miles dirt track, with wide turns and long straightaways, where high speed is attainable. For the opening the stands were not entirely completed, but the large crowd uncomplainingly watched the races beneath a scorching sun. At present the only means of reaching the course is by automobile or train, the trolley not yet connecting it with the city. The track is oval shaped and has a natural road surface with a hard clay base, the top being filled and rolled until it is as smooth as asphalt.

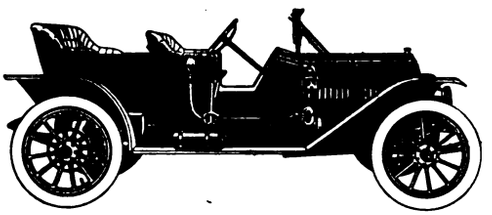
The stands when completed will be the largest in the West, it is claimed, and will afford a view of the entire course. An excellent road leads to the track.

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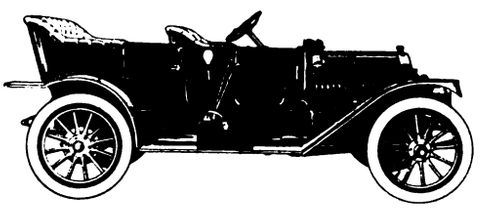
**Model "51" Touring Car, $2200**

Motor 4¼ x 4¼. Unit power plant. 120-inch wheel-base. Tires, 36 x 4.



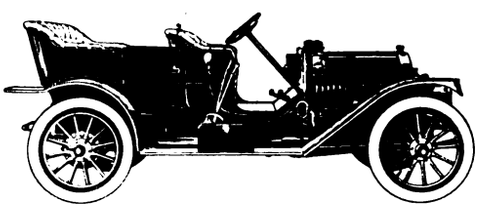
**Model "51" Tourabout, $2200**

Detachable Tonneau. Motor 4¼ x 4¼. Unit power plant. 120-inch wheel-base. Tires, 36 x 4.



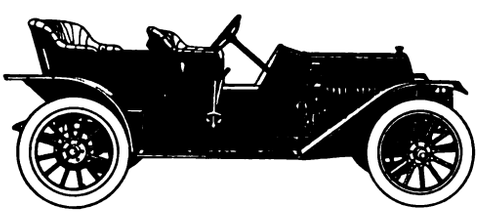
**Model "41" Convertible Torpedo, $1700**

Motor 4½ x 4½. Unit power plant. 110-inch wheel-base. Tires, 34 x 4. Front doors and panels, $50 extra.



**Model "41" Touring Car, $1700**

Motor 4½ x 4½. Unit power plant. 110-inch wheel-base. Tires, 34 x 4.



**Model "41" Tourabout, $1700**

Detachable Tonneau. Motor 4¼ x 4½. Unit power plant. 110-inch wheel-base. Tires, 34 x 4.




**Model "51" Con**

Motor 4¾ x 4¼.

wheel-base. T

panels, $50 extr

## Touring Cars Made Into Torpedoes in an Hour's Time

"Jackson" touring models can be fitted with removable front doors and panels. For fall and winter use or extended touring the protection afforded in a car of the torpedo type gives it an advantage that cannot be denied. There are many automobile users, however, who feel that for city driving they do not care to sacrifice the freedom and convenience of an open car. It is to these that we particularly recommend our Convertible Torpedo Types. Front doors and panels are furnished at a slight extra charge—the loosening of a few bolts suffices to remove them, leaving the regular standard touring car.

## Oil-Tight and Dust-Proof Construction

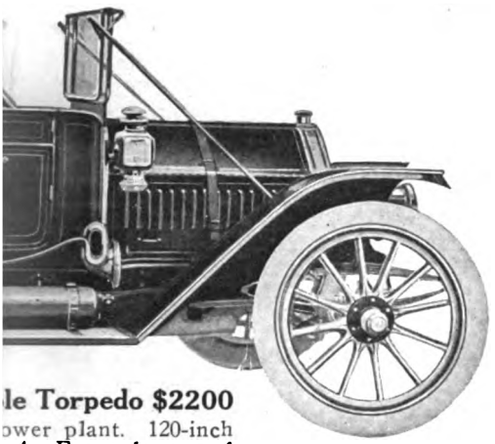
"Jackson" motors are the Unit Power Plant type, Motor Clutch and Transmission being enclosed in one oil-tight and dust-proof case. Perfect lubrication

# JACKSON AUTOMOB

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# lson 1911



**le Torpedo $2200**
ower plant. 120-inch
x 4. Front doors and

is assured by the circulating oil system—dust and dirt are absolutely excluded from the working parts.

Plenty of oil and no dirt—that's why "Jackson" motors are wear-proof.

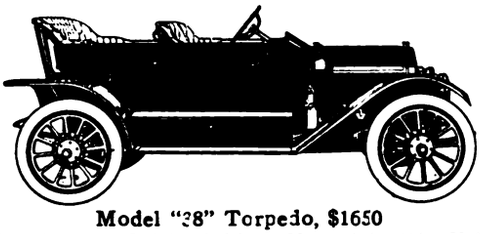
## Full Elliptic Springs—Front and Rear

All models are hung on full elliptic springs, front and rear. Their free, easy action absorbs the jolts. This is an important factor in the life of a car. The "Jackson" is the acme of comfort—rough roads can be taken without jar. In all models the weight is carried close to the ground, and the cars have a balance that is appreciated by the critical driver.

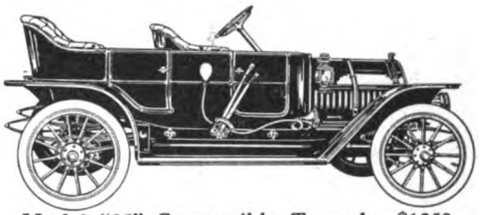
## Ten Years of Successful Production

The Jackson Company has built practical, successful automobiles for the past ten years—it has never offered to the public an inferior car.

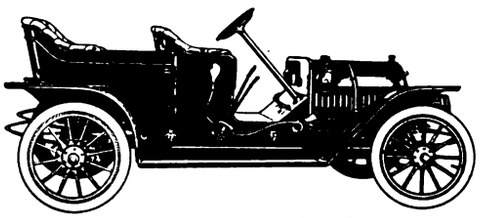
The Jackson plant is complete in itself. Modern machinery and efficient manufacturing methods enable us to produce a car from the raw material—a car which contains the utmost value for the price.



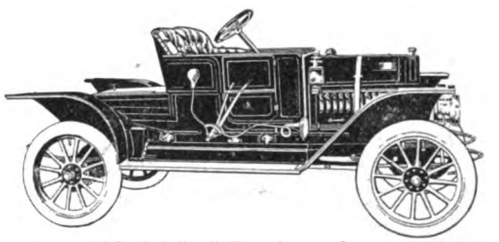
**Model "38" Torpedo, $1650**
Full Torpedo. Left-hand drive. Motor 4⅜ x 4½. Unit power plant. 115-inch wheel-base. Tires, 34 x 4.



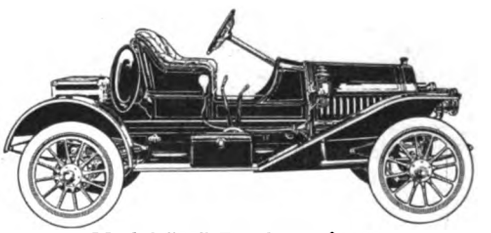
**Model "35" Convertible Torpedo, $1250**
Motor 4 x 4. Unit power plant. 105-inch wheel-base. Tires, 32 x 3½. Front doors and panels, $40 extra.



**Model "35" Touring Car, $1250**
Motor 4 x 4. Unit power plant. 105-inch wheel-base. Tires, 32 x 3½.



**Model "35" Roadster, $1250**
At a slight additional charge, the Model "35" will be furnished with detachable tonneau, which may be replaced with a roomy and convenient deck. Front doors and panels, $40 extra.



**Model "25" Roadster, $1100**
Motor 3¼ x 4½. 105-inch wheel-base. Tires, 32 x 3½. Gasoline tank at rear. Trunk $15 extra.

# LE COMPANY, 1240 Main Street Jackson, Michigan

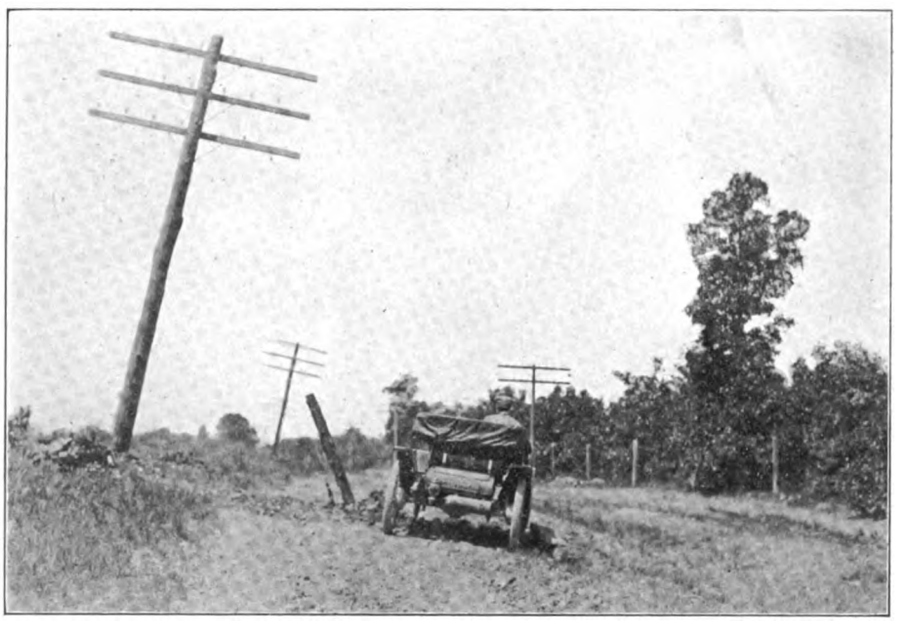
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## RESTORING THE "OLD WIRE ROAD"

**Famous Highway Through the Ozarks is the Subject of Novel Campaign—Splendid Scenic Features.**

Backed in enthusiastic style by the Springfield (Mo.) Republican in its home city, and by the St. Louis Star, J. A. White, a prominent motorist and dealer in Springfield, Mo., is waging an unusually interesting good roads campaign, looking toward the complete restoration of the "Old Wire Road" over which, 25 years ago, passed the caravan of settlers' wagons, carrying the hardy pioneers who formed the advance guard of civilization in the great Southwest.



THE "OLD WIRE ROAD" AS IT APPEARS TODAY

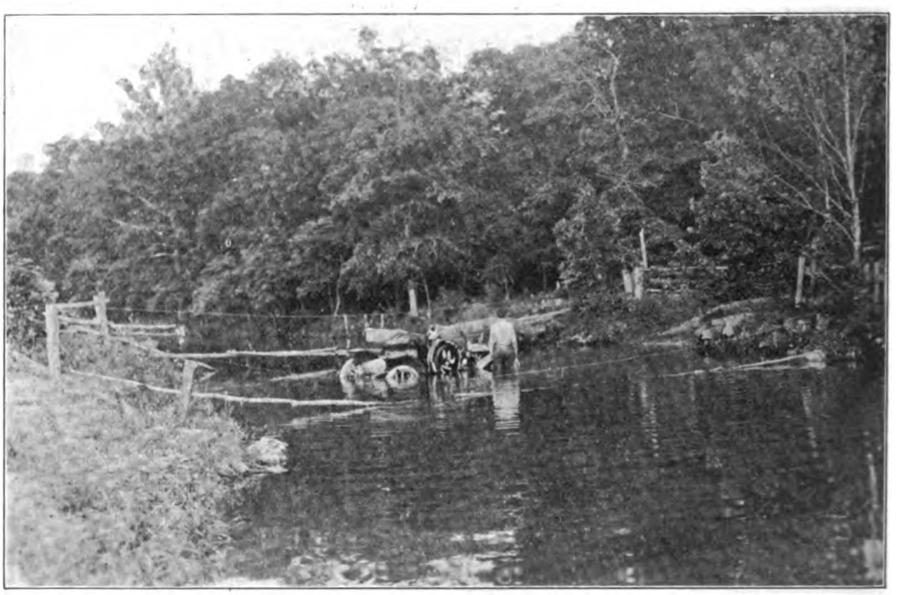
In its day, when the United States Government kept it in condition, the "Old Wire Road" was one of the most famous highways in the country. Traversing the ridges of the Ozarks it led from St. Louis to Springfield and thence to Fort Smith, Ark., and Dallas, Tex. At St. Louis it communicated with the National Highway from Pittsburg. The two formed a famous chain. All the way through the Ozarks the road was favored with natural gravel bottom, some of it constructed at great expense to prevent washouts. In many places the work of the government engineers is still in evidence. As a general rule, however, the stalwart row of poles carrying the successors of the original wires which gave the road its name, alone remain to point the general direction. The old road itself has been allowed to deteriorate to such a stage that it is now unsafe even for wagons. The bridges were washed away years ago and, in some places, the original highway has been fenced in and appropriated by the mountain farmers.

Attention to the present condition of the road was called by the "Under Three Flags" trip of the Flanders "20" car during the past summer. Reproduction of photographs of the trip and the story told by the crew of the car stirred the citizens of Springfield to action. Mr. White was appointed the chairman of a committee to push the work along. A party in six motor cars was organized to make the trip to St. Louis. After tremendous effort, using the information gleaned from the crew of the "Under Three Flags" car, the trip was made over the 240 miles that separated the two cities.

With the information at hand Mr. White has gone to work in real earnest. Personal work has been done with the progressive citizens of Union, Sullivan, Rolla, Lebanon, Richland and the smaller towns along the line. An effort has been inaugurated to secure a wagon bridge across the Gasconade at Arlington where the "Under Three at Arlington where the "Under Three Flags" car ran over a railroad bridge between two sections of a stock train. The 'Frisco this portion of Missouri—has promised to transport, free of charge, road and bridge materials. Property owners and township officers have promised assistance. The Springfield Republican has offered a handsome trophy for competition in a tour, to be held as soon as the road is placed in practicable shape.

A unique feature of the situation is the unsolicited promise of John Hosmer, a wealthy farmer whose 1,600 acres lie near Marshfield, one of the small mountain towns along the road. The "Old Wire Road" passes directly through Mr. Hosmer's farm. In fact, it was in one of the fords on his property that the "Under Three Flags" car, after coming all the way from Quebec without assistance, had to summon aid for the first and only time. Mr. Hosmer promises to boulevard all the old road within his property and is using his influence with his neighbors to secure similar co-operation. Since the "Under Three Flags" car passed through, he has become a motorist himself and his farm now contains two Flanders "20" roadsters in its equipment.

The general stirring up of interest has resulted already in a considerable improvement on the "Old Wire Road" in the populated districts. As soon as the systematic improvement is begun, next year, work will be pushed, and Mr. White and his compatriots feel that there is an excellent chance for completion during 1911. In case this hope is fulfilled, the enterprise will place at the disposal of motorists one of the most beautiful tours afforded anywhere in the United States.



THE WORST FORD IN THE OZARKS, NEARLY THREE FEET DEEP

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## PROTESTS MARK KANSAS CITY RUN

### Three of Them Filed Which May Affect Final Award—Nine Days of Much-Mixed Going.

Bucking the old Santa Fe trail ended for the contestants in the annual trophy run of the Kansas City Star on Thursday, 8th inst., at the starting point in that city, with a trio of protests.

The ninth and last day's journey from Topeka, although scheduled to be over early in the afternoon, proved most exacting, because of mud. In fact, the lightest penalty imposed was 111 points; the others ran upward to 272 points. Several cars had three and four chains "chewed up" and no end of tire trouble. One car took water seven times. On the last day the Ford was the only entrant that escaped penalization for work or replenishment, but it was taxed 124 points for being 124 minutes late.

The penalties for the day were: Buick No. 17, 125 points; Ford No. 36, 124 points; Reo No. 12, 136 points; Buick No. 18, 118 points; Maxwell No. 15, 121 points; Fal No. 34, 144 points; Speedwell No. 20, 111 points; Case No. 37, 159 points; Haynes No. 25, 128 points; Velie No. 11, 174 points; Great Western No. 5, 175 points; Kissell Kar No. 10, 260 points; Mitchell No. 32, 272 points; Buick No. 19, 274 points; Regal No. 16, 233 points; Maxwell No. 14, 158 points.

While the technical examination was in progress, C. L. Taylor, the Reo agent, filed a protest against the Buick, charging in part that the latter had a special raditator. On Monday afternoon the committee decided in favor of O. W. Hiatt, entrant and driver of the Buick No. 17, which was third in road scoring, with 88 points to 82 for the Reo No. 12 and 83 for the Case No. 37. The Buick, however, received only 54 points penalization in the technical examination, which gave it a total of 142 demerit points. The table of total penalizations follows:

| Car | Final Standing |
|---|---|
| Buick, No. 17 | 142 |
| Reo, No. 12 | 148 |
| Speedwell, No. 20 | 153 |
| Maxwell, No. 15 | 163 |
| Ford, No. 36 | 164 |
| Haynes, No. 25 | 184 |
| Buick, No. 18 | 184 |
| Case, No. 37 | 192 |
| Fal, No. 34 | 249 |
| Great Western, No. 5 | 259 |
| Kissel Kar, No. 10 | 334 |
| Mitchell, No. 32 | 361 |
| Regal, No. 16 | 556 |

Following the Reo protest as to the stock equipment of the Buick came another from the Ford, regarding the time schedule set between Topeka and Kansas City. The officials agreed upon a general 16-mile an hour schedule in Topeka in order that the cars might all move into Kansas City in a body. But the schedule was set Wednesday night when the sky was bright with starlight. In the early morning aheavy wind storm was followed with such a deluge of rain that the roads were found to be the worst in the entire run. On every other day of the tour all cars costing more than $1,600 traveled on a 20-mile an hour schedule; those under at the rate of 18 miles an hour. The point in the Ford protest is that when the schedule was readjusted, that the Ford as well as all other cars selling under $1,600 should have been given their regular advantage in time. This protest, which is said to have virtue, was overruled by Referee Strait, but, it is said, will be carried up on appeal to the contest board of the American Automobile Association. If the referee's decision is reversed, the Reo and Ford would be given credit for 42 points for 42 minutes—the difference between the two time schedules —which would make Reo No. 12 first and Ford No. 36 second.

Not to be outdone in protesting, O. W. Hiatt of the Buick, who received the award, announced Monday afternoon that he intended to enter exceptions. He said: "I was assessed 10 points for a chipped spoke, which is not provided for in the rules. Then there are other little things that the examiners found for which I think the car was punished too severely.

Two nights of undisturbed sleep at Colorado Springs—where the Motor World's report last week left them—proved the greatest of treats for the contenders. The city, having grown so used to visitors, including the Gliddenites of 1909, did not pay much attention to the motorists, who were glad of that fact, because of their fatigue. During the stop there the referee went over his figures and found that through a clerical error the Mitchell's score was 912, instead of 921. The sixth day's run from Colorado Springs was to Sharon Springs, Kan., the original plan of going to Denver having been abandoned.

The 209 miles run proved rather uneventful except for one bad mudhole. After the fine scenery around Colorado Springs, the rolling prairie seemed monotonous. Only a few small towns were passed through, and so little life was observed that the travelers made it a practice to salute the prairie dogs. The two Carter cars found it a bad day, one breaking its rear axle and the other one of its front wheels, neither reporting at Sharon Springs up to midnight. The most dramatic incident of the day was the pitching of P. P. Covert, Kansas City agent for the Inter-State, out of that car. The Inter-State left Colorado Springs an hour late, because of a leaky gasolene tank and then had tire trouble. Between the two, the only thing left to do was to "beat it" Starting up a short hill near Cheyenne Wells, the speedometer read near 50 miles an hour. Then the wheels struck a big hump. In consequence, Covert, on the back seat, was tipped out in a trice, executing a back somersault. The car was 200 yards beyond before the brakes could stop it. The passengers expected the victim had been killed, but before they could run back the dust covered lump in the roadway moved, and struggling upward exclaimed: "Where's my goggles?" The "glasses" were found 40 feet away. He was only bruised.

Arrived at Sharon Springs, the tourists found the sleeping tent idea had been abandoned. Accordingly they had to bunk six in a room. Some of the quarters, too, were in unoccupied and unfinished buildings, with shavings on the floor.

The seventh day's journey to Wilson, Kan., was an euneventful joy ride of 207 miles. Topeka was the objective point on the eighth day, a hard trip of 190 miles, because of rain that churned up the deep, sticky gumbo. Taken autogether it was with one exception the most trying day of the contest. The mud was responsible for the Great Western's losing its lead. That car had been the only one to retain its perfect score that far. In addition to other troubles it broke a spring, losing altogether 81 points. A wheel that obstinately refused to stay on spoiled the chances of the Maxwell No. 15, which previously had been debited only three points, to which 26 points were added. For scores of miles the sunflowers grew so close to the roads as to thrust their heads into the faces of the passengers. These sunflowers were responsible, however, for far more trouble. They were planted so thickly that the sun could not penetrate to the surface of the road and so dry the mud.

Junction City was the noon stop. Early in the afternoon the Fort Riley reservation was passed through, but very gingerly, as the roads were in bad condition. Some difficulty was experienced in following the route book, as houses had been repainted different colors, while more wires had been strung on the telegraph poles. Among the late happenings of the day, the Inter-State stripped a drive shaft and the Auburn withdrew because of a broken axle, while the Buick No. 19 cracked two springs. Nineteen cars out of the 37 that started were left for the last leg of the 1,565 miles run.

There was much local pride felt over the fact that the Gleason truck which carried the night gowns of the party was manufactured in Kansas City, being the only home product competing.

One or two cars were unfortunate in that their drivers and observers were disabled by illness. In one case the substitutes found the magneto an enigma and were obliged to halt another cotestant and request advice.

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## OVERHAULING CONTEST RULES

**Many Improvements Discussed by Manufacturers—Real Amateurism at Last Seems to be in Sight.**

Although the general rules committee of the Manufacturers' Contest Association on Friday last, 9th inst., held an all day session in New York, at which time the A. A. A. contest rules were discussed in all their bearings and a number of changes ratified, their nature was not disclosed. Several matters were considered of such importance that they will be referred to the entire membership for decision by mail vote, and until this vote is recorded no recommendations to the A. A. A. will be made nor anything definite regarding the proposed change be made public.

Among the subjects taken up were the following: That the decision of the technical committee of the American Automobile Association be final regarding the eligibility of any car to enter contests held under the rules of the A. A. A.; that the importer in stock car and stock chassis events be considered on exactly the same basis as the American manufacturer; that amateur drivers competing in track or road races against professional drivers shall lose their amateur standing.

Other matters considered were the amount to be charged by promoters for entry fees; the prompt reporting in track events of contestants to the starter or his assistant at least 30 minutes before the first race is scheduled; an effort to enlist the interest of the United States Signal or Engineer Corps as observers in really national reliability tours; that a paid technical committee be placed at the disposal of the A. A. A. contest board next year.

Whether or not the use of demountable wheels which do not involve a change of wheel bearings or that portion of the hub rims in all classifications, will be submitted to the members at large by a mail vote, as will the proposition to reduce the minimum weight limits in the stock chassis class.

Another important subject of great interest to race followers which was thoroughly discussed was the question of the length of time drivers in long distance events on special speedways would be allowed to continue at the wheel without change. The rules governing 24-hour races were also considered from the same standpoint.

The following members were present: Howard E. Coffin, chairman of the committee, Hudson Motor Car Co.; A. N. Jervis, American Locomotive Co.; Geo. H. Strout and G. W. Brown, Apperson Bros. Automobile Co.; Jesse Froelich, Benz Auto Import Co. of America; Geo. Dunham, Chalmers Motor Co.; Herman G. Farr, Knox Automobile Co.; A. L. Riker, Locomobile Co. of America; J. A. Emise, Lozier Motor Co.; F. F. and C. W. Matheson, Matheson Automobile Co.; M. C. Reeves, Maxwell-Briscoe Motor Co.; Wm. E. Metzger, secretary of the Manufacturers' Contest Association, Metzger Motor Car Co.; Geo. M. Dickson, National Motor Vehicle Co.; Homer George, Nordyke & Marmon Co.; H. O. Smith, vice-president of the Manufacturers' Contest Association, Premier Motor Mfg. Co.; W. B. Hurlburt, E. R. Thomas Motor Co.; W. H. Vandervoort, Moline Automobile Co.; Russell A. Field, assistant secretary-treasurer.

By invitation were present Alfred Reeves, general manager of the Association of Licensed Automobile Manufacturers, a member of the advisory committee of the Manufacturers' Contest Association; S. M. Butler, chairman of the contest board of the American Automobile Association, and A. L. McMurtry, chairman of the technical committee of the A. A. A.

**Elgin Carnival Meet to be Free-for-All.**

Despite the apparent popularity of strictly stock car races with the makers, as indicated by the large number of entries in the Elgin carnival, this seemingly increasing sentiment for stock car races now would appear to be deceiving, for the classic Fairmount Park road race in Philadelphia next month, and always a strict stock event, having attracted but three entries, has been changed to a free-for-all in the hope of attracting more nominations. When the Quaker City Motor Club, the promoter of the race, first announced the conditions for this year's race, it adhered to the rules which governed the two previous races and stood pat on the strictly stock chassis platform.

For some reason, however, but three were forthcoming and in an eleventh hour effort to save the race from failure the club has thrown it open to all cars up to 750 cubic inches, regardless of the place of manufacture. New entry blanks have been issued, setting forth the revised rules which are as follows:

There will be four divisions, classified according to piston displacement as follows: Division 3-C, 231-300 cubic inches; division 4-C, 301-450 cubic inches; division 5-C, 451-600 cubic inches; division 6-C, 601-750 cubic inches. In addition to the main prize of $2,500 to the car irrespective of class which makes the fastest time for the 200 miles, there will be four prizes of $1,000 to the winners of each division. This division of prize money to class winners displaces the usual system of giving first, second, third, etc., prizes.

After the change in the rules was made two more entries were received, making five in all. They are as follows: H. F Grant, Alco; George Robertson, Benz; E A. Hearne, Benz; Len Zengle, Chadwick, and Al Mitchell, Chadwick.

## TWO DAYS RACING AT OMAHA

**Only One Outsider Competes and Sport on New Speedway is Tame—Peculiar Accident Befalls Doherty.**

Postponed from the original dates, the 4th and 5th inst., on account of rain, the inaugural meet on the new Omaha (Neb.) Motor Speedway was held on Saturday and Sunday, 10th and 11th inst., and was productive of no records and only ordinary racing. The double card was a small one and with one or two exceptions the events were tame. Chester Cheney, of Chicago, in a Staver, won the feature race on Saturday, the fifteen miles free-for-all, in 18:02, beating Nutting, Midland, by a wide margin. He also won a class event on Sunday, and Ed. Richenbacher, Firestone, bagged a couple of races easily. The top-notcher of the meet, the 25 miles free-for-all, on Sunday went to Graves in an E-M-F, but his time was not taken. Sloan in the National was second, and Cheney third. A most unusual accident occurred in this race. The Mason car, driven by Floyd Doherty, was rounding a turn in the fourth mile, when the exhaust pipe became loose and dropped into the chain. The sudden stop of the wheels caused the car to turn a complete somersault, falling on Doherty and breaking his collar bone. His mechanic was unhurt. There was a large attendance both days. The track is a one-mile dirt oval with high banked turns, and was built by the Omaha Motor Speedway Co., which conducted the meet. The summary:

First Day—Saturday, 10th...

Ten miles. cars costing $1,000 and under—Won by H. E. Ouderkirk, Buick; second, Walter Smith, Hupmobile. Time, 8:35⅗.

Five miles stock cars fully equipped—Won by H. E. Nutting, Midland; second, George Reim, Cadillac; third, J. V. Graves, Stoddard-Dayton. Time, 6:22.

Fifteen miles free-for-all—Won by Cheney, Staver; second, Nutting, Midland; third, Graves, E-M-F. Time, 18:02.

Second Day—Sunday, 11th.

Ten miles, cars costing $1,500 and under—Won by Ed. Richenbacher, Firestone; second, Cheney, Staver; third, Ouderkirk, Buick. Time, 11:14.

Ten miles, cars costing $2,000 and under—Won by Ed. Richenbacher, Firestone; second, Chester Cheney, Staver; third, H. E. Nutting, Midland. Time, 11:06.

Fifteen miles, cars costing $2,500 and under—Won by Chester Cheney, Staver; second, Frank Sloan, National; third, Ed. Richenbacher, Firestone. Time, 15:39⅗.

Twenty-five miles free-for-all—Won by J. Graves, E-M-F; second, Frank Sloan, National; third, Chester Cheney, Staver. Time not taken.

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## CONVERTIBLE BODY MODEL ADDED

### Great Western Offers Combination Two-in-One Car—Full Torpedo Also in 1911 Line.

Two distinct types of bodies that have not had representation in the Great Western cars before have conspicuous place in the line of five cars which have been presented by the Great Western Automobile Co., of Peru, Ind., for the 1911 market. These new bodies are a full torpedo and a small tonneau, which latter is styled the "demi-tonneau" combination body, inasmuch as the tonneau portion may be removed and an interchangeable rumble seat substituted, making the roadster model. The standard touring car and the closed front or "semi-torpedo" models which complete the line bear a close resemblance to their predecessors of this year. The five models, which are supplied with standard tread or with wide tread for use in the South, have the one chassis in common, with a four cylinder power plant of 40 horsepower. The chassis has been lengthened as to wheel base to 114 inches, or an increase of two inches, and the motor now is enameled and the aluminum parts scraped and polished so that the general finish is much improved, but in few other respects has it been thought necessary to make any changes of the mechanical construction.

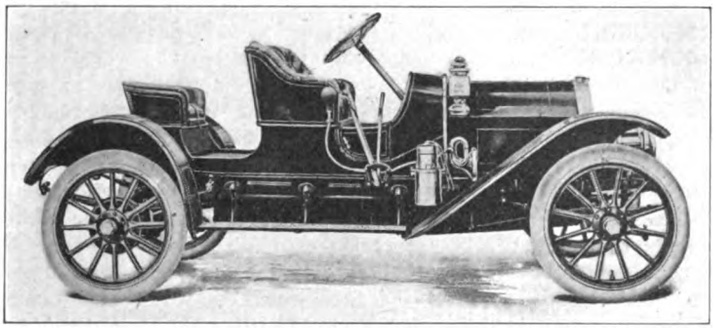
Although designed to carry four passengers, the "demi-tonneau" is particularly roomy and will carry five people. There is plenty of leg room in the tonneau and also some space for the storage of luggage. A single rumble seat, which is furnished without additional cost, is interchangeable with the tonneau, so that the purchaser has a small tonneau or a roadster at option. The car is fitted with a hooded dash, with sufficient protection along the sides of the foot boards to keep the dust and wind away from the feet of those riding in the front seats. The combination demi-tonneau and roadster sells for $1,600, and like the touring car, which sells for the same price, is finished with deep coach blue for the body and cream for the wheels.

The closed front model, designated the "semi-torpedo," sells for $1,650 and gives the driver the additional protection of high side doors. The body trimmings are in Circassian walnut, and the body itself, as well as the frame, axles, hood and radiator sides, is painted in royal purple. A pleasing effect has been obtained by aluminizing the radiator. The sides of the tonneau are high and the upholstering is particularly luxurious. Between the driver's seat and that of the front passenger there is a compartment large enough for small tools or memoranda. Hook locks are provided for the doors, to prevent the latter from opening accidentally while the car is going over rough roads.

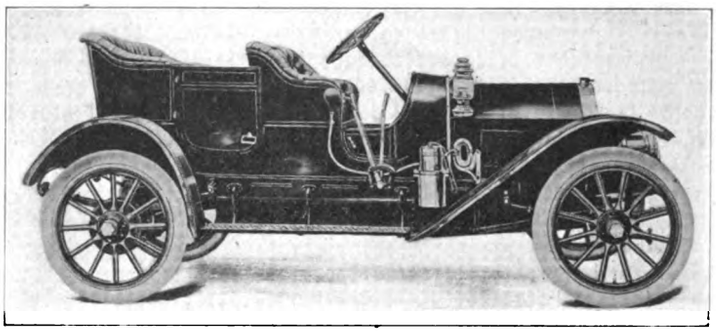
Brown is the chosen color for the full torpedo model, which is priced at $1,750. The dash is of the deep shrouded hood or scuttle type, while the high side lines of the body run in a straight horizontal line from front to back. All four doors are equipped with invisible hardware in preservation of the smooth exterior effect. The doors are fitted with locks and keys, so that they may be locked when the car is to stand for any length of time. The control set is located inside the body and as there are no brake rods or other similar fittings outside the body line, the car is especially free from outside encumbrances. The car is intended for four passengers, but, as in the case of all the other models, there is a generous surplus of room. In addition to the regular equipment, which includes magneto, large gas lamps, generator, oil lamps, horn, tool box, full set of tools and strap robe rail, the full torpedo model has a Prest-O-Lite tank, while tires 35 x 4 are used.

Long stroke construction for the motor, 4¼ inch bore and 5 inch stroke, again is used. The cylinders are cast separately, allowing the use of a five bearing crank shaft. Water jackets of ample proportions surround the cylinders, and as the radiator is very large, the possibilities of overheating are obviated to a great extent. The ignition equipment consists of dry cells for starting and a Remy magneto, which latter is located on the exhaust side of the motor and is operated by the same shaft that turns the centrifugal pump. Both the magneto and the pump are readily accessible, as is the carburetter, which is placed on the inlet side of the engine.

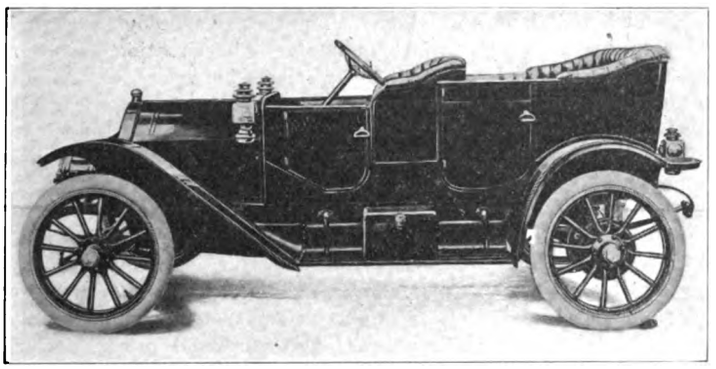
Emphasis is laid on the liberal bearing space provided for the crank shaft. The total bearing surface is 14½ square inches, and the statement is made that no four cyl-



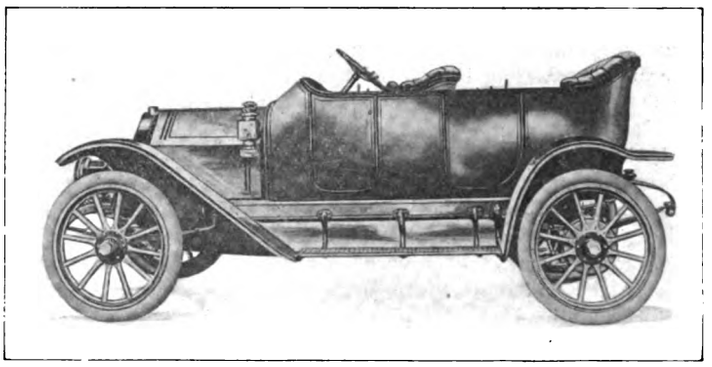
GREAT WESTERN ROADSTER



GREAT WESTERN TOURING CAR



GREAT WESTERN SEMI-TORPEDO



GREAT WESTERN FULL TORPEDO

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inder Great Western car ever has had a broken shaft. The pistons are machined to a given weight and have a convex head. The head is ribbed on the inside. Convexity of the piston head is chosen with a view to increasing the compression and to preventing oil collection, it being claimed for this construction that it greatly reduces carbon troubles. The machined smoothness is carried clear to the ends of the convex portion, and the pistons are provided with oil grooves.

Cast aluminum I-beam section is employed to give strength to the crank case. In addition, steel studs run through from the cylinder base to the crank shaft caps, so that the thrust of the crank is taken up largely by the steel studs instead of by the crank case itself. Die cast nickel babbitt bearings are used throughout for the crank shaft.

A solid forged cam shaft is used, with the cams integral. This shaft may be taken from the front of the motor by removing the front of the case. Its gear, as well as the other gears operating from the crank shaft, runs in oil. The intake valves are in pockets at the side of the cylinders, and easily may be reached by removing the caps into which the spark plugs are set. In order to get rid of the exhaust gas quickly, the exhaust valves are placed in the cylinder heads, in cages which readily may be taken out. The exhaust manifold is enlarged as it nears the muffler pipe, so that its area at the lower end is four times that of the ports of the cylinder exhaust.

Compression in the crank case is relieved by a novel form of vent pipe, which has been designed so that the oil cannot blow out over the exterior of the motor. Oil can be poured in through this vent pipe, but by the provision of vanes of aluminum alternately forward and back, the oil is baffled in any attempt to come out from the crank case. The bottom of the crank case is divided into compartments so that oil maintains the level of two holes through which the oil returns to the reservoir.

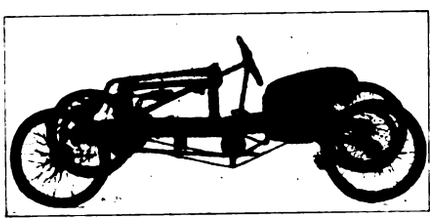
The oil chamber is so designed that the connecting rods dip at all times and the oil is splashed thoroughly to all bearings and working parts. A gear driven vane pump on the end of the cam shaft pumps the oil from the reservoir to the sub-bottom in the lower half of the crank case. There are no adjustments, as the level is fixed at the factory and it is only necessary that there be oil in the reservoir.

Selective change gear, with three speeds forward and reverse, again is used. Some improvements have been made in the construction of the gears, and more pains have been taken to polish the shafts and gears. Sufficient strength margin is allowed in the teeth to permit considerable abuse or careless treatment. Both shafts in the transmission are supported at their ends by Timken roller bearings. The clutch is of the cone type, and is covered with Raybestos, under which engaging springs are placed, to make the clutch take hold firmly but gently. The steering gear is of the worm and sector type.

Front springs are 38 inches and are semi-elliptic, while the rear springs are 44 inches long and are three-quarters elliptic. The cars now are being equipped with rubber bumpers throughout. Strut rods are dispensed with, and the propeller shaft is enclosed by a tubular housing which does away with the torque rod. Eleven inches road clearance is afforded by the front axle, which is a very heavy I-beam steel forging. A semi-floating rear axle, the same as in 1910, is continued. The frame is of pressed steel with a 2½ inch drop, and has a sub-frame to support the transmission, motor and clutch.

### Feather Weight Car on Novel Lines.

Small cars have had plenty of development in the United States, not only in variety but in magnitude of production, but



SKELETONIZED SMALL CAR

in few of them has there been quite the effort at lightness and skeletonizing that is represented in the machine which has been built by an English designer and which has a total weight of 250 pounds. The contractor of the vehicle, Harold E. Dew, of Eynsford, Kent, has named it the "Whippet Spider," the significance of the name being apparent when it is remembered that a whippet is a small light racing dog, something like a miniature greyhound, which is much used in England for sporting competition.

Dispensing with a hood and body paneling, the car has a frame and body outline of tubing. It is fitted with a 4½ horsepower single cylinder air-cooled engine, the power from which is transmitted by a link belt to an adjustable pulley and from there to the center of the back axle. The weight and complications of a differential are avoided by making the rear axle shaft of one piece and fitting each wheel with a "free wheel" device which permits it to over-ride the shaft when compensation of speed is necessary between the inner and the outer wheel in turning a curve.

Three point suspension is utilized, a transverse spring being fitted in front and quarter-leaf springs at the back. The bearings are fitted with ball bearings throughout. With a gear ratio of 5 to 1, the vehicle is claimed to have a speed of from 4 to 40 miles per hour, and the two gallon fuel tank is claimed to hold enough to run it 160 miles. The tires are 26 x 2¼. It has been given a long trial by its owner, who has set about to embody the improvements suggested by his experience in a new model having the seats in tandem.

### Motor Mails Across the Deserts.

The transportation of mails and small parcels always has been a matter of great difficulty in the waterless regions of Asia Minor and Arabia, and it was not until the so-called Bagdad railway was built with German capital in Asia Minor that inhabitants of the interior were enabled to communicate with the rest of the world more than five or six times a year. Motor cars were suggested to the Turkish government as solving in some way at least the difficulties of transportation, and the matter of installing trucks driven by gasolene engines was taken up. Owing to the well-known slowness of all things Turkish the negotiations dragged along for some time, until the firm which had submitted plans for the establishment of such a line became disgusted and dropped the whole idea. Now, however, the question of establishing an automobile mail service between Bagdad and Aleppo is again being considered by the government. A "pathfinder" automobile, in charge of a Turkish official, lately made the desert journey from Aleppo to Bagdad, and an appropriation has been made for road improvement; six French motor cars, it is stated, will be used in the service. The mails are now carried across this district on camels, which make the trip in nine days, with one waterless stretch of 300 miles.

### Cut-Price Fuel War in England.

Owing to a disagreement between the importers of gasolene, British motorists are enjoying a temporary benefit by the struggle for monopoly. The situation has been created by warfare between the Asiatic Petroleum Co. and the Anglo-American Oil Co., which latter is the English branch of the Standard Oil Co. Their battle has reached an open stage. The prospect is that for several weeks, at least, gasolene prices will be lower than ever before and motorists generally are beginning to lay in supplies. Present quotations mean a loss to importers and distributors, who only a few weeks ago increased prices, declaring that the trade was unremunerative. It is said that retail prices also will be reduced in all the larger European markets.

### Intended Garage Made into a Market.

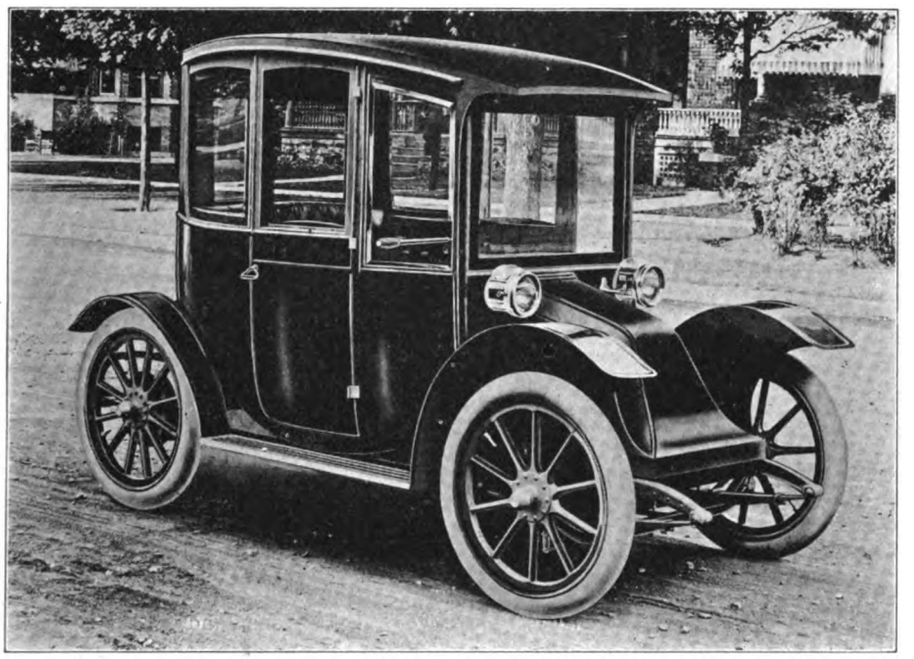
Indicating, perhaps, that the garage facilities of New York City have been extended beyond the requirements, the alteration of one of the largest garage buildings on upper Broadway, corner 77th street, into a general produce market is of more than passing interest. The plot covers approximately 10,000 square feet, and the building erected on it is two stories high.

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## HUPP'S DISTINCTIVE ELECTRIC

**Embodies Only Standard Forms of Construction but its Design Singles it Out —Some of Its Features.**

Preliminary announcement recently made concerning the intention of the Hupp-Yeats Electric Car Co., of Detroit, Mich., to put on the market a vehicle known as the Hupp-Yeats electric, has been followed by a disclosure of the mechanical details of the new product. The company commences with the advantage of prestige lent to it by the participation in its affairs of Richard Craig Hupp, the originator of the Hupmobile and the president of the Hupp Motor Car Co., of Detroit. As was the case with the Hupmobile in the field of gasolene cars, the Hupp-Yeats electric makes its initial appearance with elements of construction that are standard forms of mechanism, but so combined that the complete car is quite a departure from the conventional.



DISTINCTIVE DESIGN OF THE HUPP-YEATS ELECTRIC

Concentrating on one model, the company is producing a car which has ample room for five passengers, two placed forward and the others in the rear. Tiller steer is used, with the driver at the left. A four-pole series wound Westinghouse motor is employed, somewhat larger and heavier than customarily is used in vehicles of this size, but the extra weight is chiefly in the windings. The generous dimensions of the motor windings are for the purpose of providing an unusually heavy starting torque and for pulling the car through heavy going without overheating.

Standard batteries of the Exide type have been selected as having been proved of high efficiency and low maintenance cost and for the further reason that because of the Exide company's many branch houses, repairs can be procured in any part of the country. The battery equipment consists of three trays of 11 MV Hycap cells, there being 24 cells in all for the 28 volt motor. The entire battery is accessibly located under the hood, which latter is of the Renault type, hinged at the dash.

Through a pair of bevel gears giving a 1 to 10 reduction, the motor drives the rear wheels direct. The rear end of the motor case is bolted fast to and closes the front of the rear axle housing, giving an enclosed dust proof drive without universal joints. Imported annular ball bearings are used throughout the motor and the rear axle. The differential is of the spur pinion type, while the wheel hubs are broached square and are secured to the axle shafts by nut and cotter pin. These shafts are 1⅜ inches in diameter, of high carbon steel, and their inner ends are squared into the differential gears. The wheel ends are mounted on large annular ball bearings.

An unusually large drop characterizes the front axle, which is of the inverted Lemoine type. Spherical seated ball thrust bearings are used in the knuckles. The front springs are of the semi-elliptic type and are designed with special consideration for the battery load. All spring eyes are bushed with phosphor bronze, and they work on hardened pins provided with concealed oil cups. High carbon pressed steel is used for the frame, and a 9-inch drop at the rear provides plenty of axle clearance and allows the bringing of the floor body to within 17 inches of the ground.

Four speeds forward and a reverse are given in the controller, which is of the continuous torque type, so that there are no jerk gaps or momentary cessations of power in changing from one speed to another. The high speed is about 20 miles per hour, while the normal running speed is 10 to 12 miles per hour. Two pairs of expanding brakes act on the rear wheel, both being pedal operated. An ampere hour meter indicates the state of the battery charge.

Coach work, upholstery and trimmings have been given particular care. The fenders are of metal and the running boards are of aluminum, which latter metal also is used for the hub caps, bearing distinctive name plates. The wheel base is 86 inches and the tread 50 inches. Pneumatic tires, 32 x 3½, of a resiliency to afford high electric efficiency and mileage, are used as the standard equipment.

### Car that Permits of "Housekeeping."

M G. Carville, who is a traveling representative for a computing scale company, is making his rounds in a Warren-Detroit "30" which appears to be equipped for a trip around the world. He has removed the tonneau of his car, on the rear of the car's frame has mounted a compartment so ingeniously constructed that it is possible for him to carry a complete housekeeping equipment therein.

One part of the special compartment is a complete refrigerator, which consumes about 50 pounds of ice every three days. The traveler opened this and a curious crowd gathered to peer in at ice cold bottles of beer, fresh vegetables, meat and other delicacies of the season. There is an alcohol stove, washboard, dishes and other housekeeping equipment packed on the car. Strapped on the top of the compartment are two neatly constructed trunks carrying wearing apparel.

Carville has forsaken the railroads entirely. With him travels his wife, and the pair seldom stay at a hotel, preferring to camp by the roadside in a tent carried on the car.

The couple have traveled 1,326 miles in the last six weeks, and have not yet had a puncture. This is the fifth car which Carville has owned. He gives his wife credit for the design.

### Wants County to Pay for Tire Damage.

A rather unusual claim was filed at the September session of the board of county commissioners, at Jeffersonville, Ind. David Adkins, a merchant of Sellersburg, Ind., alleged that the bad roads of the county had damaged his tires beyond and above what was to be expected on roads that were supposed to be improved, and that he therefore should be entitled to $120 compensation. The claim was passed for further consideration, which, if it proves favorable, will cause surprise.

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## DIRECT DRIVE AND NEW MODELS

**Detroit Electrics Have Improved Transmission—Roadster on Gasolene Lines and a Larger Brougham are Added.**

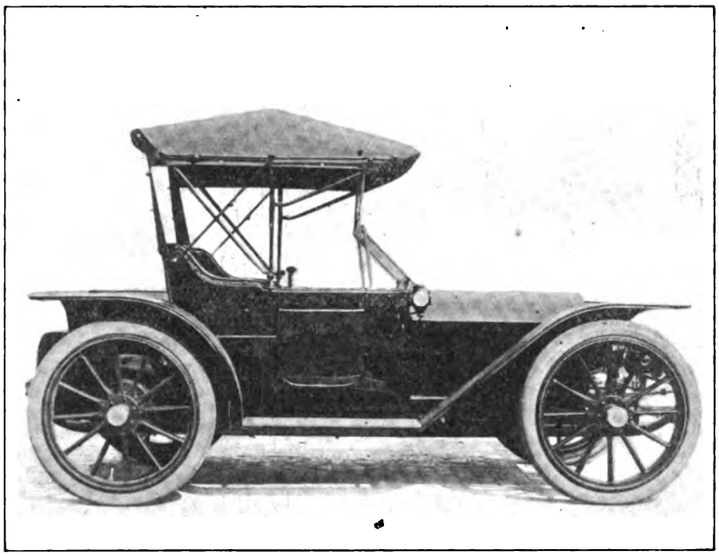
Disclosing a runabout that resembles a gasolene car in its lines and presenting a larger and roomier four passenger brougham, the Anderson Carriage Co., of Detroit, Mich., also reveals a change in the transmission system of the "Detroit" electric vehicles for 1911. Direct shaft drive transmission with reduction from chain to gears is employed, the power being transmitted directly through the armature shaft to a bevel gear in the rear axle. By eliminating the extra reduction through a chain or set of gears and a countershaft, several parts have been dispensed with, making for lighter weight and great accessibility, with an increase of directness and efficiency.

Silent running in the new offerings is effected by a bevel gear construction that may be adjusted to make a noiseless transmission, and the motor and gears are of the noiseless type. The adjustment of the bevel gear can be made within one-thousandth of an inch without expert assistance, by means of a cotter pin and screw, through the removal of a cap at the rear axle that forms a part of the differential housing. Without perfect adjustment a noiseless transmission is not obtainable.

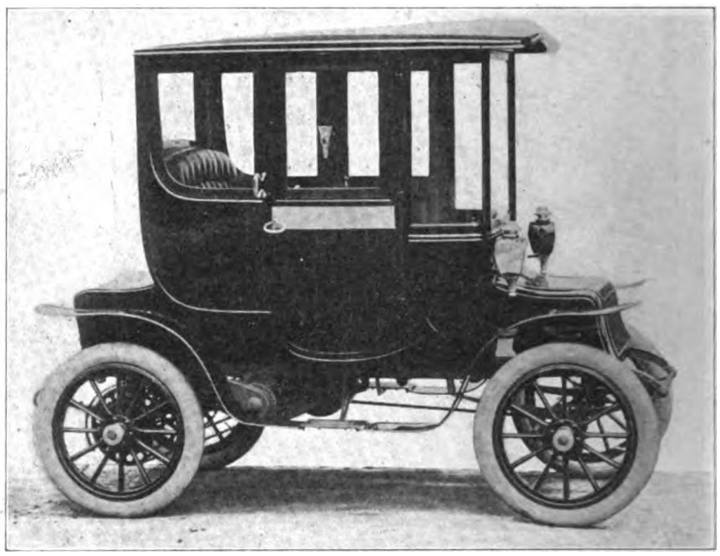
Special design in the motor provides for heavy pulling ability and low current consumption. No moving parts of the motor are exposed, but the assembly is such that every unit of the mechanism may be removed separately without disturbing any of the other parts.

Low center of gravity and an 86 inch wheel base to give smooth riding qualities are features of the new model "P" roadster which is one of the special productions for the coming year. The four passenger brougham has been enlarged to 54 inches fom the rear to the extreme of the front seat. The rear seat is 46 inches wide and 21 inches deep, while the front seat is 41 inches wide and 18 inches deep. The car has an 84 inch wheel base and the corner panels and hoods are made of aluminum to decrease weight and prevent checking of the body surface, which sometimes takes place on wood panels.

The other models are the model "T," a larger four passenger Victoria, and the "F-L," a victoria type with long Edison hood in front. Both have long wheel base and are of light weight construction. The model "D" brougham type, which has been continued for four years, is equipped with both shaft and chain drive.



DETROIT ELECTRIC BROUGHAM



DETROIT ELECTRIC ROADSTER

### Gives Valuable Rubber Statistics.

How closely the consumption of rubber presses the production of this important article is clearly evidenced in the latest statistics compiled and published by the German firm of Hecht. These statistics cover the year ending June 30, 1910, and are summarized by the Frankfurter Zeitung as follows:

"The harvest of Para qualities amounted to 39,190 tons, as compared with 38,075 tons in 1908-9, while the consumption was 39,363 tons and 38,249 tons in the two years, respectively. In 1908-9 the output was 1,395 tons greater than in the preceding year, and the consumption was 5,202 tons in excess of 1907-8, whereas the production and consumption in 1909-10 were only 1,115 tons and 1,114 tons, respectively, greater than in 1908-9. The visible stocks increased from 2,682 tons in 1908-9 to 4,217 tons last year, this seeming only to have been possible by a decrease in the invisible stocks. The total production of rubber throughout the world is returned by the statistics at 76,553 tons in 1909-10, as contrasted with 70,587 tons in the previous year, while the world's consumption amounted to 76,026 tons and 71,989 tons in the two years, respectively. These figures show an increase of 5,966 tons in the output and of only 4,037 tons in the consumption, whereas the augmentation in 1908-9 over 1907-8 was 4,208 tons in the production and no fewer than 9,613 tons in the quantity used. It is of particular interest to note that the deliveries in Europe in 1909-10 increased by 3,981 tons to 42,527 tons, but those in America only advanced by 56 tons. The arrivals in Europe are recorded at 44,336 tons in 1909-10, or 8,496 tons in excess of the preceding year, while the arrivals in America were 33,051 tons, and were less than in 1908-9. As a consequence, the European stocks rose by 2,163 tons to 5,107 tons in 1909-10, but decreased in the United States from 449 tons to 361 tons. The world's stocks are stated to be 6,998 tons, as compared with 5,024 tons in 1908-9, or an increase of 1,964 tons, whereas the stocks in 1908-9 experienced a decrease of 3,011 tons, as against 1907-8."

### Electrics Replace Old Ambulances.

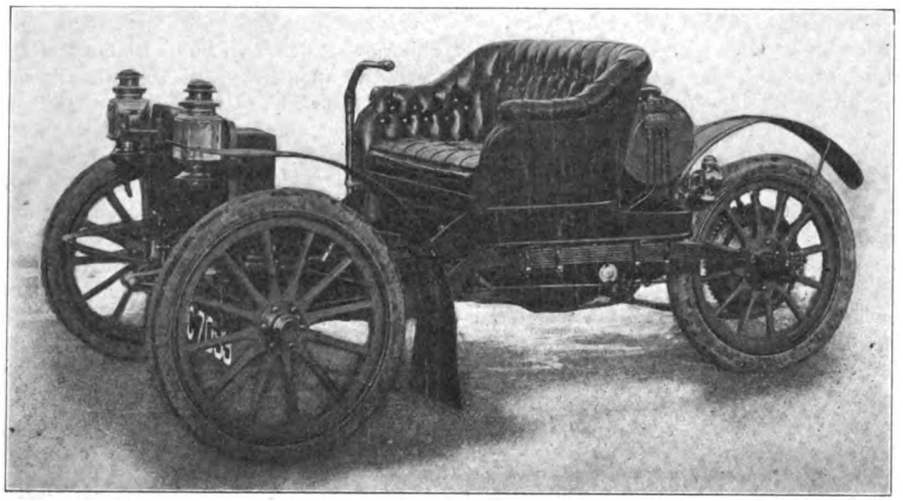
While some manufacturers and merchants, whose whole trucking is accomplished by horses, still may have their doubts about the economy and reliability of the modern commercial motor vehicle, the Presbyterian Hospital of New York City at length has reached the point of installing complete electric ambulance service in place of the old style horse-drawn wagons. The hospital authorities long ago came to the conclusion that automobiles are more reliable than horse and wagon outfits, and a good deal more economical. The three new motor ambulances have been built especially for the hospital by the Lansden Electric Vehicle Co., of Newark, N. J.

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## REAR WHEEL TILTING PREVENTED

**Kelsey's Three Wheel "Motorette" Has Original Construction for the Purpose —Light Weight and Low Price.**

Because three wheel construction does away with the complicated differential, heavy rear axle, numerous bearings and one wheel and tire, it has lured many designers and manufacturers, who later have been confronted with the difficulty arising from the inclination of the rear wheel to tilt out of line in service, but in producing a new three-wheel vehicle, styled the Motorette, the C. W. Kelsey Mfg. Co., of Hartford, Conn., utilizes a device which is claimed to overcome any possibility of the rear wheel tilting and which is the result of ten years of experiment and study in relation to the problem. The apparatus consists of a cross rod running from one side of the frame to the other, located in the forward part of the car. Fastened to either end of the cross rod is a lever, at the ends of which are connecting rods joining the front axle. This compels both front springs to go up and down together, resulting in an effect calculated to prevent the machine from upsetting or the rear wheel tilting.



THREE WHEEL MOTORETTE DEVELOPED BY A TRADE VETERAN

Not the least feature of the Motorette is its light weight, which is placed at 475 pounds, and the vehicle is to sell for $385 complete. It is to be built in numerous forms, for delivery service, for combination passenger and delivery service, and as a strictly passenger vehicle. Entirely original design throughout is claimed for it, from its motor to its running gear.

For its power plant it has a double opposed motor of the motorcycle type, and the enclosed planetary transmission gives two speeds forward and one reverse, the maximum speed being from 25 to 30 miles per hour. Its conservative gearing is for the purpose of making it a powerful hill climber and for insuring its ability to negotiate bad country roads. The high clearance of 10 inches is supplemented by the added clearance effect of the three-wheel construction, which places the drive wheel in the center of the rear.

At the rear wheel, Timken bearings are used, while Parsons white brass boxes are provided for the motor bearings. The front axle is of I-beam construction and is of forged steel, while a high grade of gear steel is used for the transmission gears. The springs are made by the Spring Perch Co., of Bridgeport, Conn., and the specifications call for the same material as is used in the springs of some of the most prominent and high priced cars.

Lubrication of the motor bearings and the two cylinders is effected by a circulating sight feed oil system. From these parts the oil flows into the crank case, then overflows into the crank case bottom, where it is forced back through a filter to the original reservoir. An oil supply of one gallon and a gasolene supply of six gallons is named as sufficient for a run of from 150 to 180 miles. The light weight of the vehicle makes possible the use of motorcycle tires on the front wheels.

### Bombay Has 1,400 Automobiles.

According to Consul E. Haldeman Dennison, of Bombay, India, there are over 1,400 cars now registered in that city, not a half a dozen of which are American. Recently, however, an American car, which retails in the United States for $950, has been introduced and promises to become popular because of its low price and silent running qualities. It is too early yet to say whether it is going to stand well under the rough handling that most cars in India receive from the half-trained chauffeurs and the severe conditions imposed upon it through the hot and damp climate. If it proves satisfactory it will open up the market for other American makes.

## ARE READY TO PAY GOOD PRICES

**Buyers in Argentina Want Quality and Durability—Buenos Aires Shows an Increased Demand.**

The present market for automobiles in Argentina is principally in Buenos Aires the capital and metropolis, where there is a slowly increasing demand for high-grade cars suitable for city driving, says J. D. Whelpley, American commercial agent, in a report to the Department of Commerce and Labor. In several other cities motor cars are also in use, but they are little employed for traveling through the country generally, owing to exceedingly bad roads, or lack of roads.

With improvement of the highways, which will undoubtedly take place before many years, at least between the larger cities, there will be an increased field for motor vehicles, because the level, open character of the country offers opportunity for fast travel, and the long distances from place to place will make the automobile a valuable time saver.

Just now the demand is mainly for a city car, few people attempting outside trips of any distance, but automobile dealers are trying to stimulate the use of machines in the country at large, despite bad roads, and have been experimenting with various types of cars built to overcome existing difficulties. A specially designed car appears necessary for successful use on Argentine country highways, the most essential requirement in which is a specially high clearance, one of as much as 30 centimeters (1 centimeter equals 0.3937 inch) against the prevailing 20 or less for city use.

United States automobiles offered for sale in Argentina have been from the first and still are confined to a few cheap makes. Testimony is that the earlier sales were not satisfactory, and that in consequence United States cars are much discredited. This condition, along with the fact that the demand here is for a high-class and not a cheap automobile, makes the sale of the North American machines which are offered uphill work. Whether high-grade cars from United States factories could be sold here depends on overcoming the existing prejudice against the North American makes and in meeting the seriously competitive prices of the best European products. Dealers handling such machines from the United States as are now offered in Argentina say the latter is impossible.

In order to gain an idea of what can be sold in Argentina, and at what price, it is essential to understand certain fundamental facts about the automobile buying public and its requirements. Buenos Aires is in an almost overshadowing sense the prin-

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cipal market for cars. Not only are a large majority of the automobiles of the country owned there, but even those used in other cities are mostly purchased in the capital. There is a large number of persons in Buenos Aires able to own automobiles, and the reason that more are not in service is doubtless due to the limitation put on their use by the poor condition of the roads outside the city limits.

The wealth of Argentina is in its estancias, or farms, the owners of which commonly live much or most of the time in Buenos Aires. These men have money to spend and are ready to spend it with an open hand for personal comfort and luxuries. Their number is augmented by business and professional men of the metropolis, who have shared in the country's prosperity. This does not make up a class of buyers which is looking for a cheap car, and there are few of that sort to be seen in the streets of Buenos Aires. On the contrary, the most expensive machines are the kind in use, the average running even higher than in a city like New York.

Buenos Aires, with 1,250,000 inhabitants, is the only large city in the country. Rosario, next in size, has less than 200,000 inhabitants. Moreover, most of the wealth centers in Buenos Aires, and it is there that the well-to-do estancia owners generally have their city homes.

The estimate of one automobile dealer gives a total of 3,000 cars in use in Argentina, of which he assigns 2,000 to Buenos Aires. The total estimate corresponds fairly well with other data as to number of machines, but the proportion assigned to the capital is probably too low. Seventy-five per cent., or more, would possibly be closer. The Argentine import figures for the five years from 1904 to 1908, inclusive, show a total of 2,339 cars. For the last of these years the number was 495. Following are the statistics for the five-year period, and the year 1908 by itself, classified according to countries:

| Country | 1904-1908 | 1908 |
|---|---|---|
| France | 1,468 | 305 |
| Germany | 311 | 37 |
| United States | 195 | 44 |
| United Kingdom | 165 | 51 |
| Italy | 137 | 43 |
| Belgium | 26 | 5 |
| Spain | 15 | 4 |
| Switzerland | 9 | 4 |
| Uruguay | 9 | 1 |
| Austria-Hungary | 2 | — |
| Bolivia | 1 | 1 |
| Holland | 1 | — |
| Total | 2,339 | 495 |

These figures must not be taken as representing exactly the place of manufacture, as they include cars purchased abroad and brought into the country by their owners. In such instances the country from which they were shipped was not necessarily the country of manufacture.

France has a long lead in supplying the Argentine market. It is to be noted that the United States led Great Britain in number of machines for the five-year period, but fell behind her in the last year. Moreover, imports from the United States, although considerable in number, were comparatively low in value, because they were cheap cars. On the 165 English machines the duty, which is 10 per cent. ad valorem, was $221,918, Argentine gold, as against only $135,304 on the 195 North American automobiles. It is more difficult to appraise the value of a high-priced than of a cheap car, and in consequence undervaluation of the former is easier. For this reason it is likely that the real value of the English automobiles imported exceeded that of the American machines even more than the statistics indicate.

The type of car most in demand is the landaulet, or the combination landaulet and touring car, with a top which may be raised or lowered at will.

There are said to be agencies for 32 makes of automobiles in Argentina. Half a dozen United States firms are represented in this number, but there is only one agency which is doing anything at present, and even this managed to sell scarcely more than 50 cars last year.

Two machines are handled by this agency, one of which sells in the United Stateh for as low as $500 and the other for about $1,000. The selling prices here are twice those figures, and it is stated that a cheap car cannot be handled at a profit on any other basis.

On the expensive European cars a 50 per cent. addition to the selling price in the country of manufacture seems to be the average. This provides for the cost of shipping, a 10 per cent. ad valorem custom duty, an additional 2 per cent. for national war debt, and the extra expense attached to selling in Buenos Aires, a city in which rents are high and cost of living generally half as high again as in the United States.

The most prominent English company in the Argentine market, the Daimler, charges $4,300 American currency for the 5-passenger "Brighton landaulet," which it catalogs at home for $3,200; $5,000 for its 5-passenger "Piccadilly phaeton," against $3,300 home price; and $5,700 for its "Coventry landaulet," for 5 to 7 passengers, against $4,000 home price.

Generally speaking, high-class French and Italian landaulets and touring cars sell in Buenos Aires for $4,000 to $5,000, United States currency. In other words, after 50 per cent. has been added to their European price, they retail at about the same figures as similar quality American cars cost at home. This means that if cars costing $4,000 to $5000 in the United States were sent to Argentina, and the 50 per cent. added to their home price, which dealers regard as necesary, they would have to sell for $6,000 to $7,500 against prevailing rates of $4,000 to $5,000 for European cars. Hence the difficulty of competition unless definite superiority is demonstrated and favor secured.

It is possible that United States makers might open up a special field for themselves by being first to supply a strong, high-clearance, broad-tired wheel car, specially adapted to the rough and muddy roads of the country. Undoubtedly there is a demand by estancia owners and others for some such means of conveyance between the cities and the "camp," as the farming country of the Argentine is known. Such a machine should not be a cheap one. It would have to be of the best construction and of high power, although looks might be subordinated to utility.

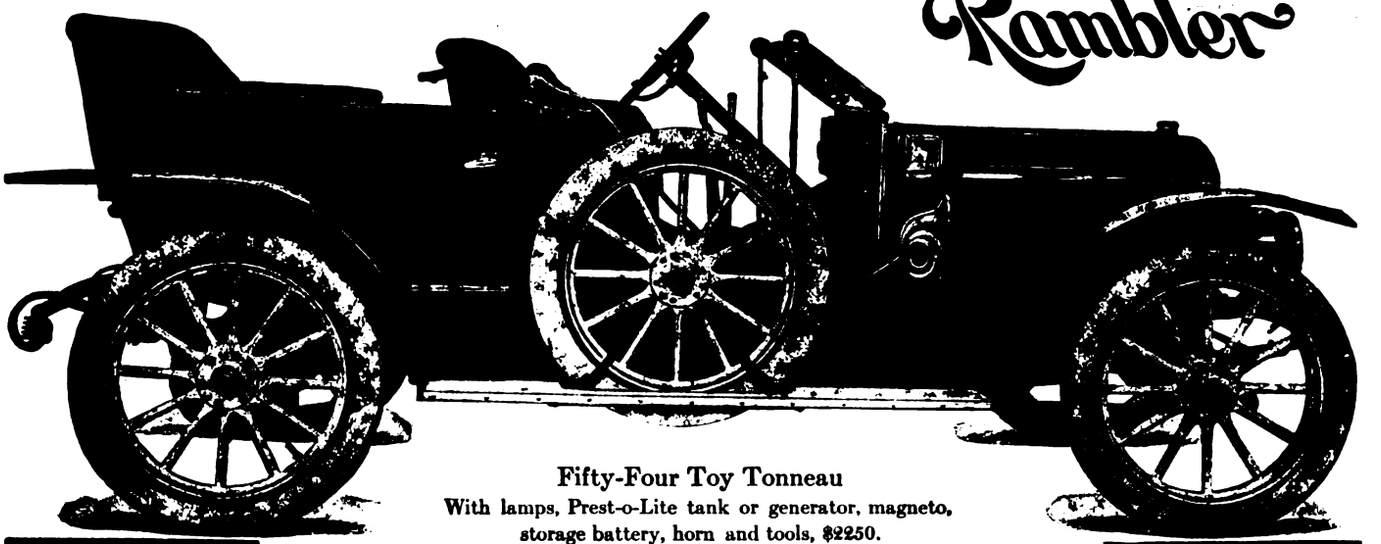
An English company has already been experimenting with a special type of car for the "camp" roads, and, according to a local newspaper, recently ran such a machine 540 miles from Bahia Blanca to Buenos Aires at an average of 20 miles an hour. The automobile in question is rated at 15 horsepower, but is said to be capable of developing 25. It has an exceptionally high clearance, the body being some 12 inches from the roadway. An extra large radiator is fitted to prevent boiling, and is fitted with a thermo-siphon and a mechanical pump for water, while all the mechanical parts of the car are inclosed in a dust-proof casing. The frames and axles are extremely strong and the car has springs to resist heavy jolts and bumps likely to be met with when motoring in the country.

Leaving Bahia Blanca in a heavy rain storm the route taken lay through Pringles, Laprida, Olivarria, Azul, Las Flores and Canuelas, to the federal capital. At times, the road disappeared completely, and the only thing left was to steer the car straight across country. Marshes were frequent. An average of six a day were met with, all of considerable size, while no fewer than eight rivers and streams had to be forded, one of which, the Arroyo Hinojo, was about a foot and a half deep. Still the car came through, and on its own power, with no greater inconvenience to the passengers than the water splashing over their baggage on the floor, due to the great height of the body of the car above ground. Occasionally the wheels sunk to their axles in the sand and mud. One serious mishap alone delayed the journey, a broken horseshoe near Azul cutting a tire to pieces, which entailed a delay of some hours. Beyond this, the only other incident of a like character was the breaking of the starting handle as the car was plowing its way through a more than usually heavy marsh.

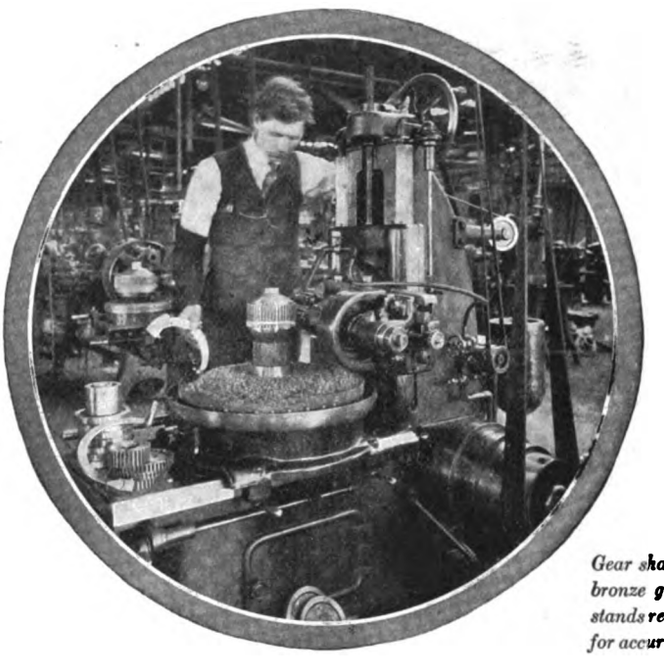
There are some motor taxicabs in Buenos Aires, but they are few in number compared with the horse-drawn public vehicles, nor does it seem likely that the latter will be superseded by them for some time. Horses are cheap in Argentina, while gasolene has to be shipped from the United States, and therefore expensive.

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**In a Tangle Over Government Cars.**

James Schoolcraft Sherman, Vice-President of these United States, is willing to pay an automobile registration fee to the state of New York, but does not know just how to do it, because the automobile he uses is national property. However, in order to secure a New York registration, oath must be taken as to the ownership of such vehicle, hence Mr. Sherman's dilemma. The case seems to be different from any other that has yet arisen, inasmuch as the others were of army or navy officers who owned their cars. As the law reads, no one can secure a license unless he owns the automobile for which the number plate is desired. Mr. Sherman's automobile is registered in the District of Columbia, which peculiar political division has no reciprocity laws to offer an avenue of escape from the dilemma. Gen. Wood took such a fall out of S. S. Koenig, secretary of state, when the latter requested his fee that the latter now is going slow in treating with government officers. Accordingly he has registered the Vice-President's car and is now delving into the law on the subject. In the former case the secretary contended that the charge was not a tax but a fee, but the members of the diplomatic corps without any great show of diplomacy observed that the cost was $2 in either case and managed to keep their money.

**Hezekiah's Bad Eye May Help Him.**

Hezekiah W. Pettibone, of Attica, Wyoming county, state of New York, 70 years young, will be the dean of the chauffeurs' guild in the Empire commonwealth if he gets his much desired certificate from Secretary Koenig, champion of one-eyed drivers. To be sure, Mr. Pettibone's label is somewhat against him, but he sent along his photograph, not caring to let the department form a mind's eye opinion of him from his signature. The applicant has one strong point in his favor. He says he has operated farm machinery and been an agent for the same most of the time for 40 years. Nevertheless, he still posseses all his legs, arms, fingers, toes and a cheerful smile. He has had one weak eye almost from birth, and in consequence has worn a wind shield since childhood's happy hour. That fact, however, will only strengthen him with Mr. Koenig, who recently championed a one-eyed applicant.

**Dynamite for Silverton Pathfinder.**

Acccording to the Silverton, Col., correspondent of the Denver Post, the county commissioners, on the quiet, have been fixing up the road between Creede and Silverton, so as to make it possible for motor vehicles. Dr. D. L. Meckling, of Denver, had the honor of being the first motorist to get through to Silverton, being greeted by dynamite, salutes, ringing bells and blowing whistles. His was also the first car to make the trip up the Rio Grande Valley and over the Continental divide. Mayor Allen of Silverton came out to extend greeting together with about all the citizens and pet animals.

**Forgery to Indulge in Automobiling.**

How far some people will go when they submit to what has appropriately been called the automobile craze, again was shown last week in Philadelphia, Pa., when John C. Cancelmo, Jr., forged a check in the name of his father, a wealthy produce merchant, cashed it at the Camden National Bank, and utilized the money in buying an automobile. He was arrested after a short "joy ride," accused of forgery and embezzlement, and held in $1,500 bail. His father was chief prosecutor against him.

**False Registration No Crime in France.**

According to a decision handed down by the Court of Cassation, Paris, France, it is no crime in that country to use false registration or identification numbers. Ross Vincent, an Englishman, was convicted of appropriating the registration marks of Countess Duces and was sentenced to two months imprisonment and to pay $20 damages to the countess. He appealed, secured a reversal of judgment and the court ordered the decision published five times in the Paris newspapers.

**Motoring Blamed for Yacht Club's End.**

Seemingly by some oversight no one has yet attributed the July drought to the automobile industry. Last week the Motor World told how the carriage manufacturers declare they have been obliged to mark up their prices on vehicles because of the increase in the cost of labor and materials brought about by the demand for automobiles. In the same issue, too, was printed the plaint of the city librarian of Bloomington, Ill., that his reading rooms were deserted because of the craze for motoring and film picture shows—rapid motion being involved in both cases. Now comes the wail of Adolph Mollinhauer, of New York, who found being commodore of the Cometquot Corinthian Yacht Club of Bay Shore, Long Island, an expensive honor. He holds executions on the bankrupt organization for more than $10,000. An auction sale of the property was attempted a few days ago, but the receipts were little in excess of $600, and Mollinhauer had to bid in much of it at that. The collapse of the club, it is insisted, was mainly due to motoring. The demand for chauffeurs, too is such that it is no longer possible to secure crews for craft on the Long Island bays.

**Dog Somersaults a Taximeter Cab.**

When an automobile runs over a dog, it is usually the canine which gets the worst of the argument, but in the case of a taxicab belonging to the Burns Motor Car Co., of Macon, Ga., the humble dog at least had the satisfaction of ditching the taxi, and nearly killing its occupants. The sole passenger promptly sued the company for $5,000 damages, so that the net result of the accident may be summed up as a "yaller" dog with two broken legs, a wrecked taxicab, a severely injured chauffeur, a slightly less injured passenger, and litigation which promises to drag its way through the courts for some time to some. Eye witnesses state that the taxicab was going at top speed, struck the dog a glancing blow, skidded and crashed ino the curb, turning a complete somersault.

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**THREE victories are positive proof of Ajax superiority in endurance and service under hardest working conditions in all parts of the country.**

## IN the three great reliability tours of 1910—Glidden, Munsey and Star Cup—Ajax Tires scored a far better record than any other make.

The United States Motor Company offers strong testimony as to the wonderful work of Ajax products on its winning cars in the Glidden and Munsey events. Read this letter:

> "Beg to advise that the Maxwell Car number 25 equipped with your tires was the winner of the Grand Prize in the 'Munsey Tour,' which covered approximately 1750 miles through eight states. We wish to advise that your tires have given us uniformly good use not only in this tour but also in the 'Glidden Tour,' where the Maxwells finished with the best team score.

Now comes the great Star Cup 1675 mile tour, the important event of the West, which ended September 8th with only 16 out of 40 starters finishing, in which the Ajax was the only make of tire suffering no blowouts, with seven casings out of twelve carrying original Kansas City air at the finish.

Read the list of contestants in these great touring contests which used Ajax Tires.

**Glidden Tour, 3000 Miles**

Maxwell No. 7, second for Glidden Trophy
Maxwell No. 107, second for Chicago Trophy

**Munsey Historic Tour, 1550 Miles**

Brush No. 14, winner in Division 1A
Brush No. 13, second in Division 1A
Maxwell No. 25, winner in Division 3A
Columbia No. 2, second in Division 5A
Brush (Photograph Car) came in with the winners, as did Maxwell No. 26. Columbia (Official Pacemaker).

**Star Cup Tour, Kansas City, 1675 Miles**

Maxwell No. 15 } Official awards
Maxwell No. 14 } not announced
Columbia No. }

***Wherever the tests are hardest Ajax Tires show up strongest because they are the only tires that could meet a guarantee like that under which they are sold—5000 miles or 200 days' service.***

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## RECENT PATENTS.

965,083. Motor Vehicle. Walter Christie, New York, N. Y. Filed Jan. 26, 1910. Serial No. 540,121.

1. In a motor vehicle, the combination with a steering wheel, of a carrier therefor comprising two parts—one carrying bearings for the wheel, and the other part journaled in a bearing above the wheel to rotate about an axis at right angles to the axis of rotation of the wheel—the two parts being arranged in sliding relation with each other whereby they may move relatively in one direction but are otherwise secured together, spring means disposed between the two parts, means for imparting movements of rotation to the carrier about its axis for steering purposes, and means for imparting driving movements to the wheel.

965,642. Armor for Pneumatic Tires. Albert Henry Macbeth, Fort Wayne, Ind. Filed Dec. 30, 1908. Serial No. 469,966.

1. An armor for pneumatic tires comprising a series of separate and independent flexible armor band sections, means for securing the ends of the respective sections to the rim of the wheel, a flexible tread plate secured to each section and overlapping the adjacent section over substantially the entire width of tread surface, whereby the joints between the sections at the tread surface are protected from puncture.

965,698. Protector for Automobile Tires. Jacob S. Ehrich, Lynchburg, Va. Filed Dec. 3, 1908. Serial No. 465,870.

1. A tire protector comprising a metal ring, a substantial semi-circular in cross-section, carried and supported entirely by the tire and in contact with the tread thereof, and a ring of resilient material, U-shaped in cross-section, fitted over each edge of said metal ring and provided with a resilient strip adapted to bear against the side of the tire.

965,715. Demountable Rim for Automobiles. Charles Johnson, Buffalo, N. Y. Filed Feb. 23, 1910. Serial No. 545,492.

In a demountable rim, the combination with a wheel felly having a beveled surface at one side edge, of a reinforcing metal band adapted to fit on the felly having an inwardly extending flanged portion on one side arranged to extend into engagement with the beveled part of the felly and an outwardly extending flanged portion on the opposite side, a tire rim resting on the top of the outwardly extending flanged portion, a rim ring within the tire rim provided with an inwardly extending flange adapted to fit against the side of the felly, and a fillet at the juncture of the rim ring and its flange provided with a beveled surface arranged to fit upon the beveled surface of the inwardly extending flange of the reinforcing band, and bolts for securing the parts together in assembled position; and the heads of said bolts being elongated and having their top edges in contact with the tire rim and their inner surfaces in contact with the outwardly extending flange of the reinforcing band.

965,749. Lamp. Edwin M. Rosenbluth, Philadelphia, Pa. Filed Jan. 24, 1907. Serial No. 353,804.

1. The combination with a lamp casing having a concave spherical reflector at the rear thereof; of means arranged to produce a second flame on the central axis of said reflector, but nearer to said reflector than its focal center; whereby the rays from said first flame are projected parallel with said axis, and the rays from said second flame are projected divergently with respect to said axis, and, a parabolic reflector in front of said flames, having its focal center coincident with said second flame; whereby the rays from said second flame are projected parallel with said axis, and the rays from said first flame are projected divergently with respect to said axis.

966,414. Auto Tire Container. Bernard A. Alperin, New York, N. Y., assignor to Lafayette B. Gleason, Delhi, N. Y. Filed May 5, 1909. Serial No. 493,998.

1. The combination of a drum shaped case having at one side a semi-circular lid portion hinged to the case, said lid having a flange on its peripheral portion projecting inside of the casing in engagement therewith when closed, and also having a flange portion engaging the outside of the case when closed to form a tight closure, the hinge portion of the cover being located below the edge of the engaged portion to form a tight joint.

966,445 Driving Mechanism for Tractor Tricycles. Benjamin Hourioux, Rambouillet, France. Filed Jan. 10, 1910. Serial No. 537,290.

1. In a traction vehicle, in combination, a motor, an axle, a track wheel at each end thereof, independent means for operatively connecting each wheel with said motor whereby either wheel may be actuated alone or both wheels may be actuated simultaneously, and levers operatively associated with said means for controlling the actuation thereof, said levers being positioned adjacent one another whereby the operator may simultaneously grasp the same with one hand.

966,451. Trunk. Isidore S. Kallis and Joseph Berg, New York, N. Y., assignors, by mesne assignments, to Lafayette B. Gleason, Delhi, Del Filed May 20, 1909. Serial No. 497,343.

1. An automobile trunk formed at its edge with a notch, and a frame reinforcing the edges of the walls of the notch.

966,621. Auxiliary Spring for Automobiles. Charles L. Thomas, Canisteo, N. Y. Filed Aug. 21, 1909. Serial No. 514,044.

1. A hanger rigidly fastened to the leaf springs of a vehicle near the free end portion of said spring, an auxiliary upright compression spring carried by said hanger, and a lever having means of vehicle body attachment and fulcrum connection with said leaf springs, and resting upon said auxiliary spring.

966,577. Wheel Mount and Axle. George D. Munsing, Newark, N. J. Filed June 7, 1909. Serial No. 500,486.

1. In a wheel mount the combination of an axle, a yoke pivoted thereon having a central boss, a crank having a pin journaled in the boss and a pin forming a wheel axle, an arm fixed on the journal pin extending in the direction of the crank, a spring-cup supported by and universally movable on said arm, a bracket extending from the top of the yoke over said cup, a cup depending from the bracket, a spiral spring seated in said cups, a lever fixed to the lower end of the yoke and a connecting rod pivoted to the lever adapted to be connected with a similar lever on the wheel mount at the other end of the axle.


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**No Lugs nor Security Bolts**

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Each Franklin is designed to meet a definite demand, and each combines everything that gives grace and distinction of design, efficiency and dependability of operation.

Franklins for 1911 are made in four chassis sizes and horse powers. All are of the same high quality. Two chassis have six-cylinder motors, and two have four-cylinder motors, with eleven styles of open and closed bodies.

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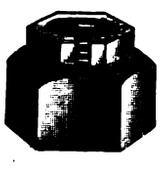
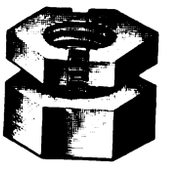
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| The Remy Brassard and Trophy | NATIONAL |
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**Other Bosch-Equipped Winners of Saturday's events were Herreshoff, Marmon, National, National, each of these winning a Five Mile stock chassis event.**

**Other victories of Bosch-Equipped cars on Labor Day were Herreshoff, Fiat, Firestone-Columbus, Marmon, National and National.**

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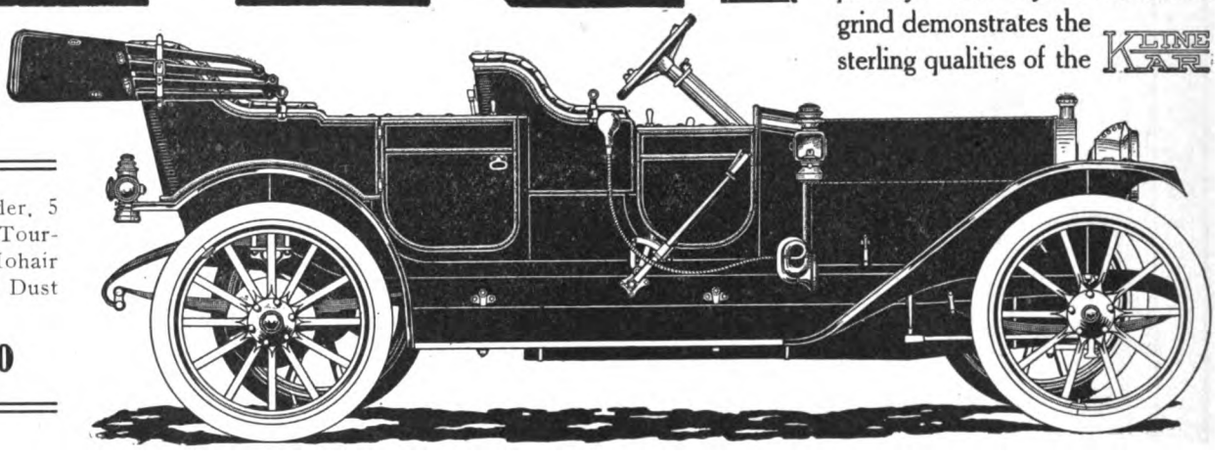
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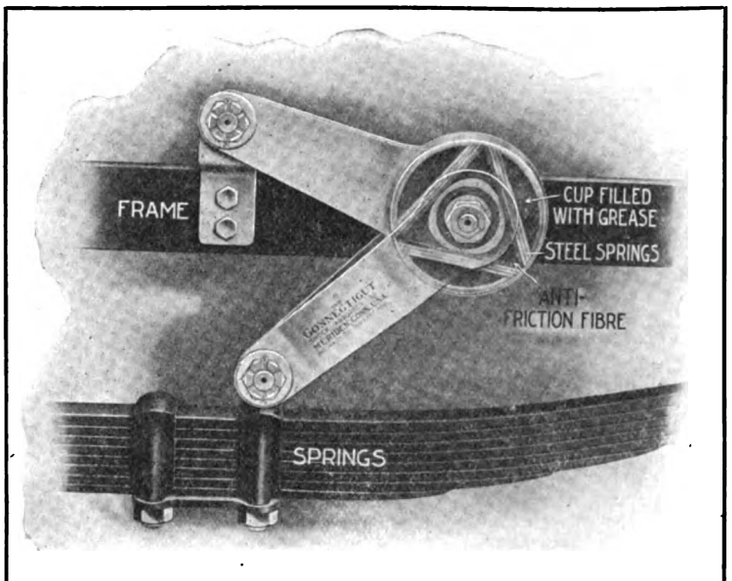
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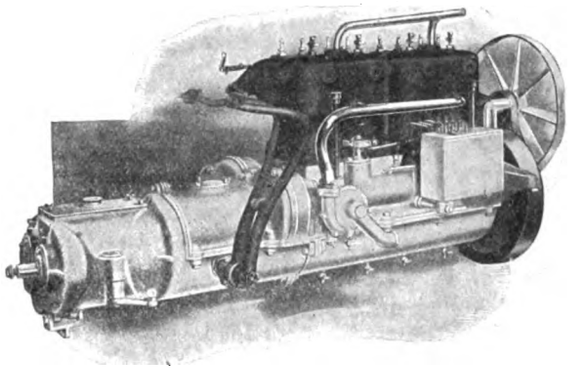



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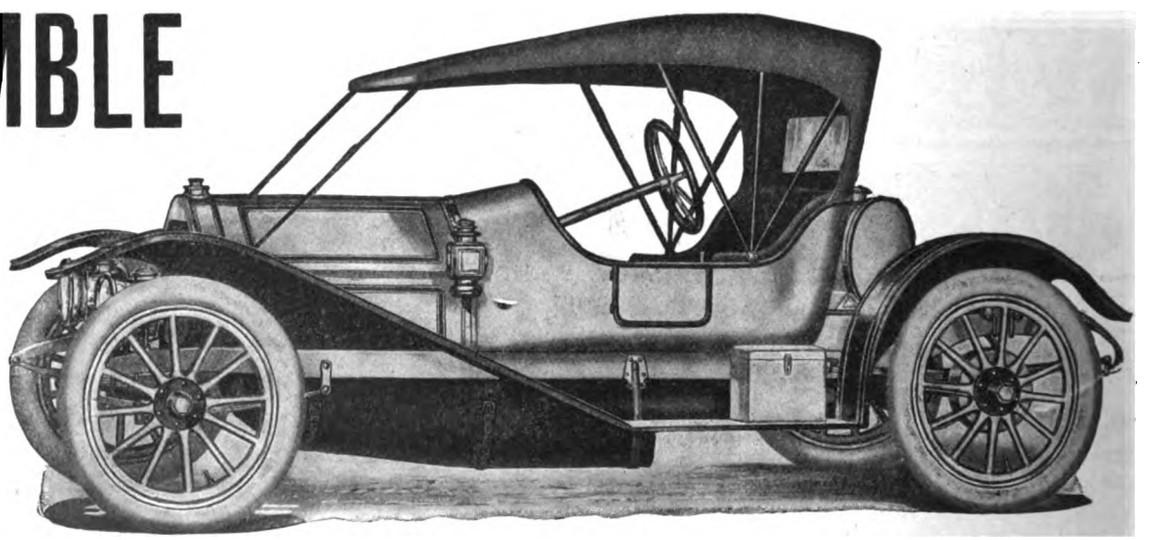
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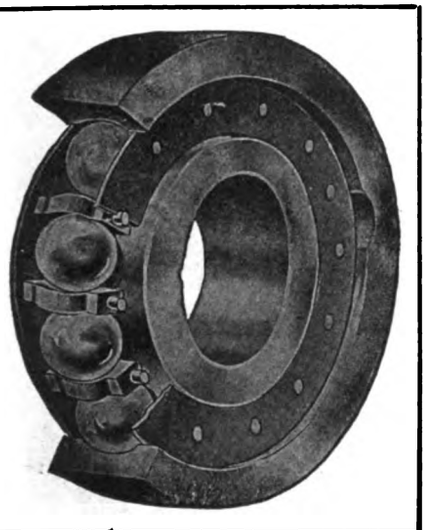
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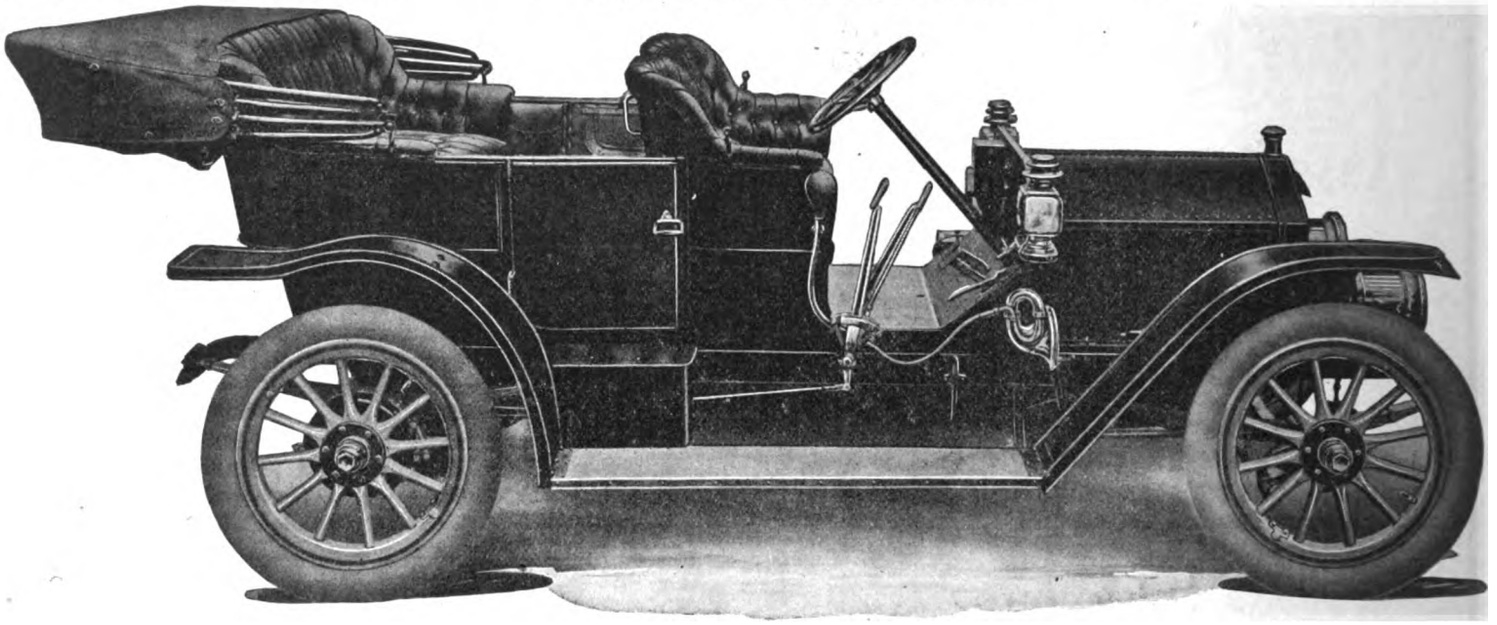
Write for advance 1911 printed matter. (See Motor World of August 11 for description of 1911 models).

Pullman AUTOMOBILES

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**York, Pa.**

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**Model K—1911, 35 H. P. Touring Car, $2,000; with Fore Door Body, Completely Equipped, $2,500**

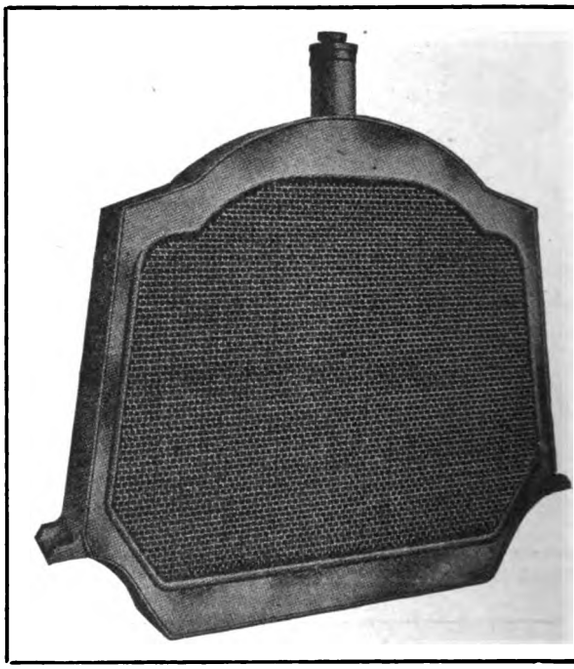
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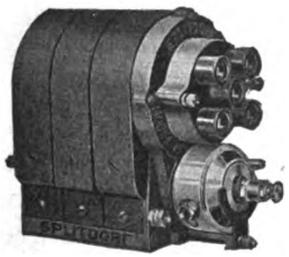
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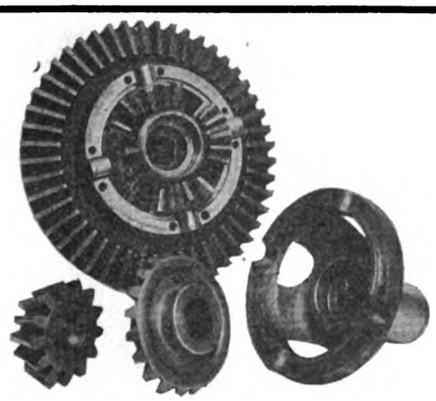
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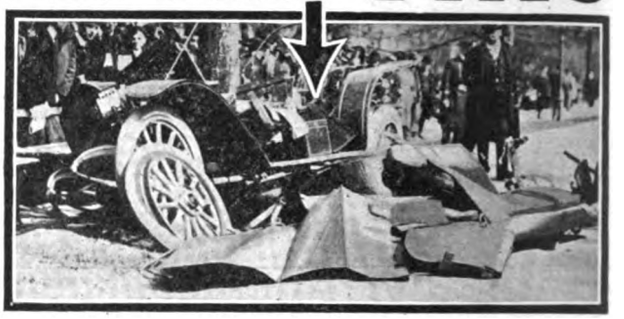
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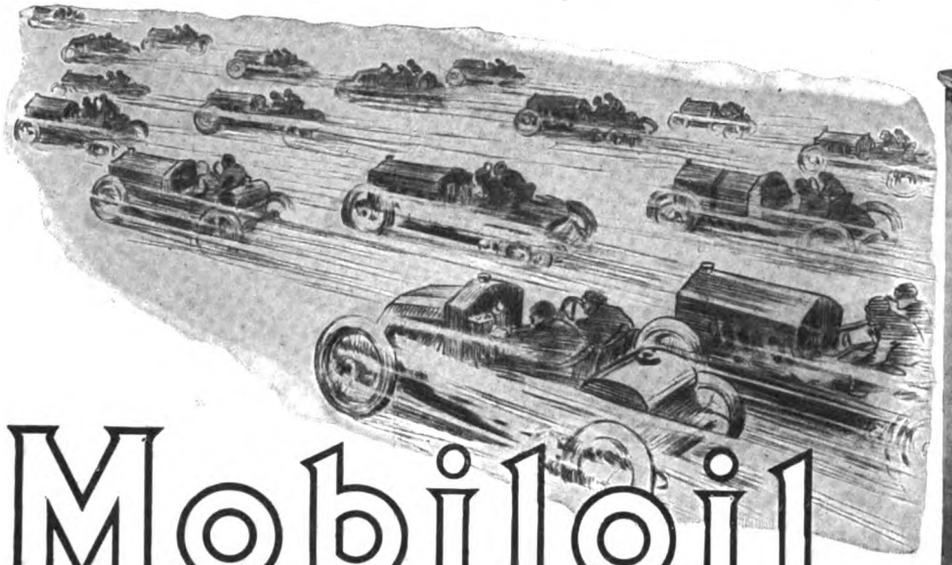
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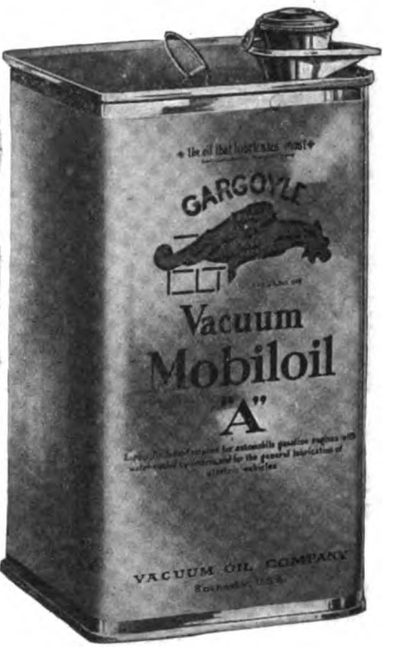
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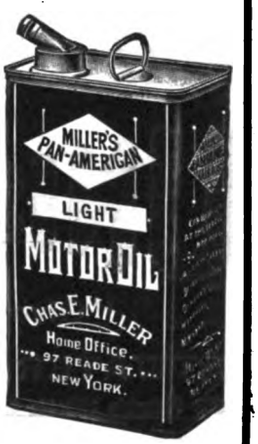
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are refined from **the finest grade Pennsylvania Crude** and are pure, distilled, highly-filtered mineral oils. **Have a high fire test, low cold test** and not affected by climatic changes. **They are made in three grades** suitable for all types of water and air cooled **Motor Cars, Motor Boats and Motorcycles.** In order to convince you of the efficiency of these oils we are willing to make you a special price for an initial order, much lower than usually quoted on other high grade oils.

**WE HAVE HANDLED THIS OIL DURING THE PAST EIGHT YEARS AND DO NOT HESITATE TO RECOMMEND IT TO BE THE EQUAL OF ANY FIRST CLASS OIL ON THE MARKET.**

**Special Prices for Manufacturers, Jobbers and Dealers**

**ADDRESS OIL DEPARTMENT**

**CHAS. E. MILLER,** MANUFACTURER, JOBBER, EXPORTER AND IMPORTER
**Home Office, 97-99-101 Reade St., New York City**

**The Largest Auto Supply House in America.**

**BRANCHES—Philadelphia, Boston, Cleveland. Detroit. Buffalo. Hartford. Atlanta, Brooklyn, New York City.**


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# Empire Tires
WEAR LONGEST
EMPIRE TIRE CO., Trenton, N.J.

# FORGINGS

We make all kinds of forgings—make them just the way you want them—rough, rough-turned or machined to blue prints—make and deliver them quickly.

Heat treating furnaces under the direction of skilled and competent men.

Send us your blue prints for quotations.

**THE WRIGHT WRENCH & FORGING CO.**
1417 Barth Street Canton, O.

# HARDENING
**High Speed Steel Hardening a Specialty**

Case Hardening, Tool Steel Hardening
Heat Treating and Annealing

**BRIDGEPORT METAL TREATING CO.**
Bridgeport, Conn.

THE ATWATER KENT
# UNISPARKER
"Gives Perfect Ignition"
**ATWATER KENT MFG. WORKS**
33 North Sixth Street PHILADELPHIA, PA.

# PRESSED STEEL RUNNING BOARD




**CHEAPER—MORE PRACTICAL than any other board.**
*Send Dimensions.*
**THE PARISH & BINGHAM CO., Cleveland, Ohio**

# AFTER WASHING YOUR CAR-DO THIS:




Put a few drops of 3-in-One on a piece of waste moistened with a little water. Rub all the varnished woodwork. See how it renews the newness—how it preserves and hardens the highly polished surface—how it prevents dust sticking to body of car!

Do the same to seats, top, curtains—all leather parts. 3-in-One will keep the leather from hardening, cracking or rotting.

Don't forget to go over all the metal parts with waste moistened with 3-in-One. That will prevent rust and tarnish and keep everything bright and shiny.

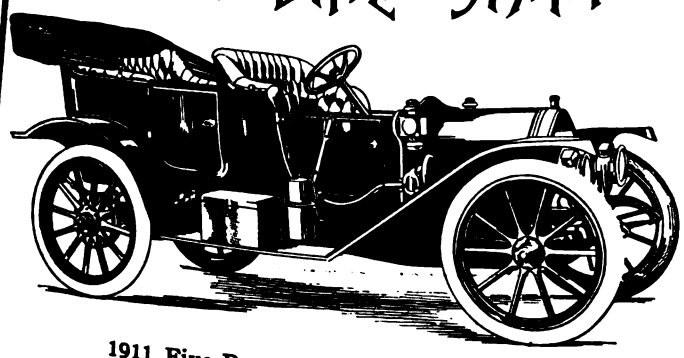
8 oz. bottle—Automobile Size—50 cts. 3 oz.—25 cts. Trial size—10 cts. For sale at all garages, auto supply dealers and stores. Write for free sample bottle and Special Auto Circular today.

3-IN-ONE OIL CO., 64 Broadway, New York.


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# LION "40"

"RUNS LIKE SIXTY"



1911 Five Passenger Touring Car, $1,700.

**The Greatest Car of the Greatest Century**

Some desirable territory open to dealers making immediate application.

**LION MOTOR SALES CO.**

General Agents for United States and Canada.

650 Woodward Avenue Detroit, Mich.

# Mosler Spit Fire

THE PLUG WITH THE DEEPEST CHAMBER

# Leads the World

READ **NOTICE!** READ

Our SPIT-FIRE Plugs are for sale by all legitimate dealers and jobbers.

If you cannot get a delivery— THERE'S A REASON!

WRITE US DIRECT

WE CAN SHIP ON TWENTY-FOUR HOURS' NOTICE

Dealers and jobbers beware! We protect our trade mark

PACKED IN THIS BOX FOR YOUR PROTECTION



DONT BUY IMITATIONS

A. R. MOSLER & Co. 163 W 29TH ST. NEW YORK.

# WETHERILL FINISHED CASTINGS

¶ Die cast from Parson's white brass make the finest kind of engine bearings.

¶ Absolutely accurate and every one interchangeable.

¶ We are now making 25,000 bearings per day, and increasing output as rapidly as possible. A case where quality is recognized and put to use.

WETHERILL FINISHED CASTINGS COMPANY

PHILADELPHIA, PA.

THE

# MITCHELL SIX

The only six cylinder car in the world that sells for so little money. $2,000



SILENT AS THE FOOT OF TIME

Specifications: MOTOR, 4½x5. TRANSMISSION, selective type. WHEELS, 36x4. WHEEL BASE, 130 inches. IGNITION, magneto and dry cells. Color, dark blue, cream running gear; option, dark maroon, cream running gear. TOOL BOXES, steel baked enamel. SEATING CAPACITY, seven passengers. STEERING WHEEL, natural finish. SPRINGS, platform type. BODY OPTIONS, seven-passenger touring car or close-coupled body. EQUIPMENT, oil lamps and horn, full tool equipment, including jack.

# MITCHELL

Licensed under Selden patent.

F. O. B. Racine, Wis. Racine, Wis., U. S. A.

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**Prevents Accidents**

The rich mellow notes of the Gabriel Four-Tone Horn are a peremptory warning for pedestrians and vehicles to get out of the way.

It can be heard for blocks on busy streets and miles on country roads. It keeps the road clear and prevents accidents. Write for book and prices.

**GABRIEL HORN MFG. CO., 1417 E. 49th Street, CLEVELAND**

**STEERING GEARS**
**CONTROL LEVERS**
**RADIATORS**

**PROMPT DELIVERY**

**CENTAUR MOTOR COMPANY**
**510 Majestic Building** **DETROIT**



DEALERS: Are you handling the

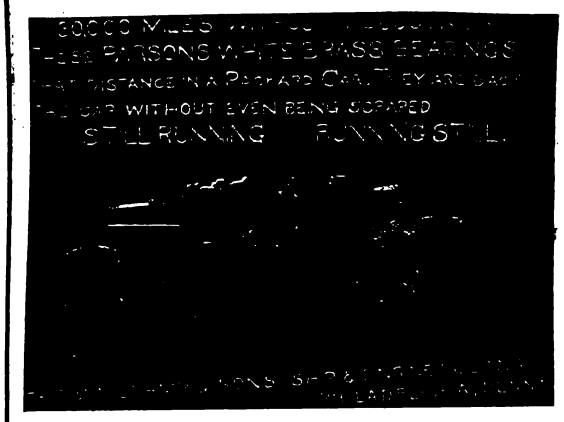
**EDELMANN TIRE GAUGE?**

**If not, why not?**

**They sell on sight! Because they are what every car owner needs. Indicate the exact pressure in the tire at all times.**

**Price $1.50** All dealers or prepaid mail on receipt of price

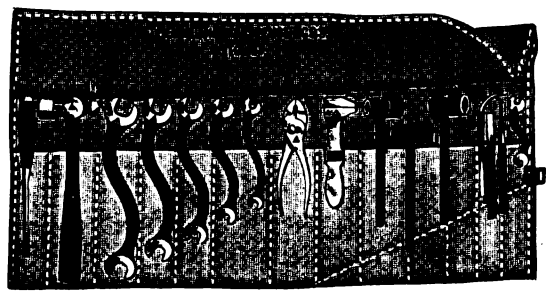
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**51 W. Kenzie Street** **Chicago**




**Cramp — Metals**

**The B&S Tool Kit**

Every tool a steel drop-forging, a handy and popular selection. No better guarantee than the fact that each tool is made by



New Catalog
**THE BILLINGS & SPENCER CO., Hartford, Conn.**

**BRISCOE PRODUCTS**

**Radiators, Hoods, Fenders, Sheet Metal Parts of All Kinds**

**Briscoe Manufacturing Co.**
**General Offices, Detroit, Mich. Factories, Detroit and Newark, N.J.**

**Heinze High Tension Magneto**



**Construction**—Mechanically unequalled.

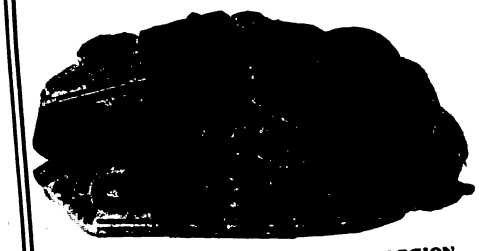
**Durability**—Greater than the life of the car.

**Efficiency**—Proven by the users.

*Catalogue H with full information is yours for the asking.*

**HEINZE ELECTRIC COMPANY**
**Lowell, Massachusetts**

**WARNER GEAR COMPANY**
**MUNCIE, INDIANA**



25 H. P. PLANETARY TRANSMISSION
Showing Both Cone and Disc Type Clutch.

**Steering Gears**
**Transmissions**
**Differentials**
**Clutches and Control Levers**


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Regal "30"

"The Ideal Car for all Purposes"

The only $1250 car with a record of three years of success behind it

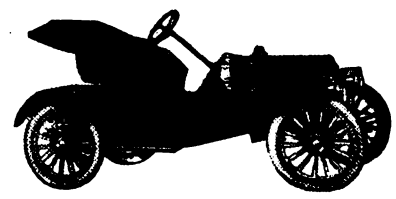
$1250

Runabout, Baby Tonneau, Touring Car, Coupe

Greatest Automobile Value in America

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REGAL MOTOR CAR COMPANY, Detroit, Mich.



$485

1911 Metz Runabout

Fully assembled and completely equipped as shown at above price.

Sold exclusively through dealers.

We want good live dealers; those who believe in low price, economical cars and can sell them.

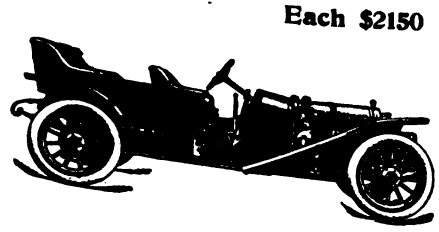
It will pay the wide awake dealer to get in touch with us.

METZ COMPANY, Waltham, Mass.

MERCER

TOURING CAR
TOY TONNEAU
SPEEDSTER

Each $2150



Style, Luxury, Quality, Strength, Speed.

Made Right and Stays Right

*Let us hear from you.*

MERCER AUTOMOBILE CO., Box 126, Trenton, N. J.



$1,600 Cartercar

Model "L," 4 cylinder, 30-35 H.P., 110 inch wheel base, 5 passenger, Friction Transmission, Chain-in-Oil Drive, any number of speeds, will climb a 50% grade with load, including magneto, gas lamps, generator, horn, mats, tools, jack, etc. $1,600.

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Write for 1910 catalog.

CARTERCAR CO.

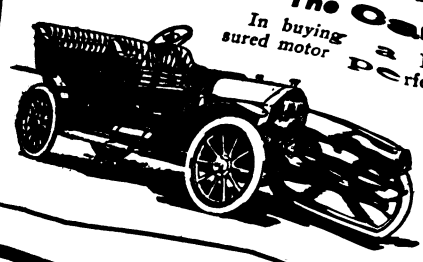
Pontiac, Mich.

Licensed Under Selden Patent.

Pierce-Racine

$1750

The Car with a Famous Engine



In buying a Pierce-Racine you are not only assured motor perfection, but satisfaction in every way. The body, wheels, springs, upholstering, accessories, etc., are all of a superior quality found only in the high priced American and Foreign makes. Write today for catalog.

PIERCE MOTOR COMPANY

111 22nd St., Racine, Wis.

Not a Car of Advertised Value,
But a Car of Intrinsic Worth.

STERLING

$1750

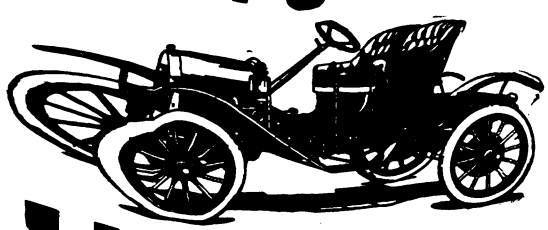
Let us send you our Catalog

ELKHART MOTOR CAR COMPANY, Elkhart, Ind.

EVERYMAN'S CAR

Seven Models

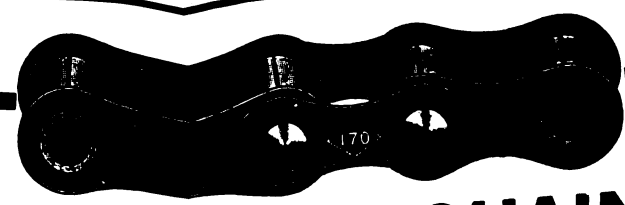
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The BRUSH $485.00

BRUSH RUNABOUT COMPANY

414 Baltimore Avenue, Detroit, Mich.



DIAMOND CHAINS

are and have been the recognized quality standard for 20 years. Strong, accurate and durable. Let us cut your sprockets.

DIAMOND CHAIN & MFG. CO.

150 W. Georgia St. Indianapolis, Ind.

Capacity 3,000,000 feet per year.


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THE SELDEN CAR
MADE THE FATHER OF THEM ALL
FOR 1910

| | | |
|---|---|---|
| 5-Passenger Touring Car | | $2,000 |
| 3-Passenger Roadster | | 2,000 |
| 4-Passenger Torpedo | Tonneau (Magneto Included) | 2,250 |
| 7-Passenger Touring Car | (Magneto Included) | 2,500 |

Booklet and specifications upon application.

AGENTS WANTED IN UNOCCUPIED TERRITORY.

SELDEN MOTOR VEHICLE CO.

GEO. B. SELDEN, President, - ROCHESTER, N. Y.

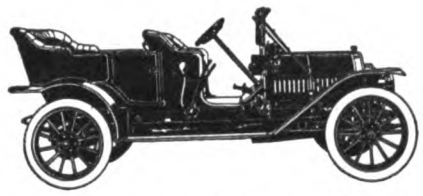
Licensed under Selden patent.

THE THOMAS FLYER is the champion endurance car of the world. Over 80 per cent. of the people who own Thomas Flyers previously owned other cars. They were in a position to appreciate automobile values. The Thomas Flyer is now their unqualified choice.

The E. R. Thomas Motor Company maintains a force of traveling experts who periodically call upon every Thomas owner and make sure that his car is in good condition. Let us send you some of the letters from our owners and some of our interesting engineering literature.

E. R. THOMAS MOTOR CO., Buffalo, N.Y.

Licensed under Selden Patent.



Model "50"— 4 Cylinder Touring Car, . . $2350
Model "40"— 4 Cylinder Touring Car, . . $1700
Model "30"— 4 Cylinder Touring Car, . . $1250

JACKSON AUTOMOBILE CO.

Licensed under Selden Patent. JACKSON, MICH.

K-R-I-T

"The car with the invisible start."

96 in. wheel base
32 in. wheels

22½ H. P. $800

Sliding gear transmission. Multiple disc clutch. Weight, 1200 lbs.

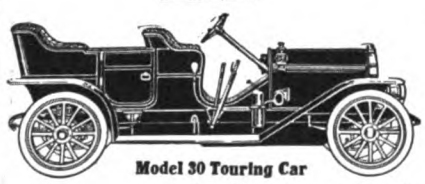
Runabout $800.
Roadster $825.
Surrey $850.



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K-R-I-T Motor Car Company
DETROIT

The $1750 Inter-State "40"



Model 30 Touring Car

Speedy, Graceful, Easy-Running, Reliable.

Of all the good ones
THE INTER-STATE
is the best in its class,

Refinement of Design, Superior Workmanship and Able Organization Make this Possible.

*Our proposition is interesting to all dealers. Compare our specifications with any high-priced car.*

(29)

INTER-STATE AUTOMOBILE COMPANY, Muncie, Ind.

Licensed under Selden patent.

The only car of established reputation selling at a moderate price.

HAYNES

$2000

Station C, KOKOMO, IND.

Licensed under Selden Patent.

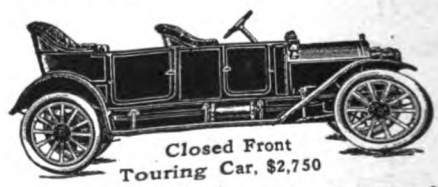
Maxwell Cars—1911 Line

| Model | Style | Cylinder | H. P. | Price |
|---|---|---|---|---|
| E. A. | Touring Car | 4 | 30 | $1600 fob |
| G. A. | Touring Car | 4 | 30 | 1600 fob |
| G. A. | Roadster | 4 | 30 | 1600 fob |
| E-11 | Touring Car | 4 | 30 | 1500 fob |
| G-11 | Touring Car | 4 | 30 | 1575 fob |
| I | Touring Car | 4 | 25 | 1100 fob |
| Q-11 | Runabout | 4 | 22 | 900 fob |
| Q-3-11 | Touring Car | 4 | 22 | 1000 fob |
| A. B. | Runabout | 2 | 14 | 600 fob |

Maxwell-Briscoe Motor Co. Vale Street Tarrytown, N. Y.

THE MARMON

"The Easiest Riding Car in The World"



Closed Front Touring Car, $2,750

Has won practically all the important long-distance racing events of America.

NORDYKE & MARMON CO., Indianapolis, Ind.

(Estab. 1851)

Licensed under Selden patent.


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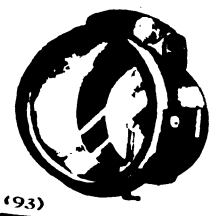
# Solar Users Are the Best Solar Advertisers

It isn't because we advertise, it isn't because of any special salesmanship we possess, that most of the high-grade American cars are today equipped with Solar Lamps.

It takes more than good advertising or good salesmanship to make a car manufacturer pay out thousands of dollars more for his lamp equipment each year.

It's because the vast army of Solar users have spread abroad through the motoring public the knowledge that Solars are the only absolutely, reliable, dependable and satisfactory lamp equipment.

Even when a car maker doesn't equip regularly with Solar Lamps, he'll furnish them if you insist on them. Have him put Solars on your car, and join the great army of those who have abolished lighting troubles.



We should like to place our interesting free catalog in your hands.

**Badger Brass Mfg. Co.**
Kenosha, Wis. New York City

(93)



## Convenient— Attractive—Necessary

If you are a motorist y u need an auto trunk—a Kamlee Auto Trunk. Because the Kamlee is the only one that is built to meet all the demands of the motorist, and the nly one that does—it is made by trunk-make s who are motorists, touring motorists, who know what motoris s want.

# The KAMLEE Auto Trunk

is built of 3-ply Bass Wood Veneer (not of pulp composition); covered with heavy black enameled duck; lined with genuine Irish linen; fi ted with two or three or more suit cases which can be obtained by merely lowering the patent drop front of the trunk, a feature not found in any other trunk made; is

**Absolutely Rainproof and Dustproof**

and is without question the strongest and most durable, neatest and most attractive and is in addition to the appearance of any car; it is built to conform to the shape of the tonneau of any make or type of car. If you want more information about the only real auto trunk address,

**THE KAMLEE COMPANY**
**345 Milwaukee Street**
**MILWAUKEE, WIS.**



# Ready for More Business

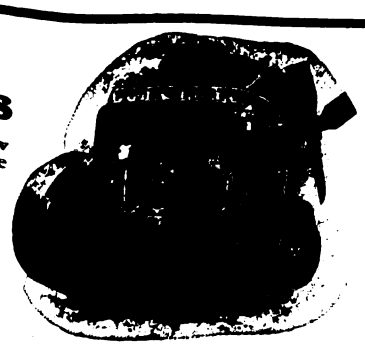
Increased facilities, new buildings, new machinery, enables us to make more motors.

**NOW IS YOUR TIME**

**Nothing better ever made than the Rutenber.**

Write for list of manufacturers using the Rutenber. Write for list of agents who say it sells the car. Write for personal testimonials, praising its power, speed, endurance and economy.

Latest improvements. Each motor carefully tested and fully guaranteed.



Cars 4x4; 41-2x5; 43-4x5

**Marion Indiana WESTERN MOTOR COMPANY Logansport Indiana**
Address all inquiries to Logansport, Indiana, Sales Department.

# SERVICE and SATISFACTION

are assured when

# G&J TIRES

are used.

**G & J TIRE CO., Indianapolis, Ind.**
We Sell Continental Demountable Rims.




# A Real Battery AT A REAL BARGAIN

We have on hand a number of 6 volt 60 amp. dry type storage batteries, built for us by one of the best known manufacturers. These batteries were built to sell at $26.00 and are worth the money, but as we have accidentally become overstocked, we offer them while they last at $12.50.

No better battery is built or sold at any price.

**EXCELSIOR SUPPLY CO.** (Estab. 1876) **Randolph St. Bridge CHICAGO, ILL.**

# Diamond

## The Pioneer Motor Tires of America

FIRST—BEST

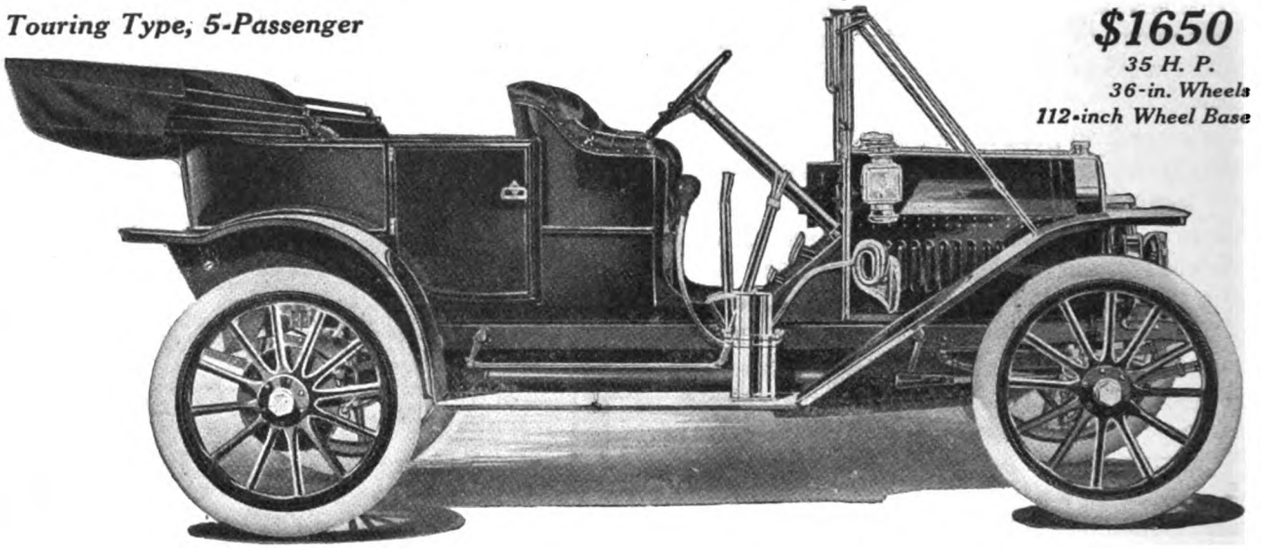
**THE DIAMOND RUBBER COMPANY, Akron, Ohio**

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# 1911 Moline "35"

*Touring Type, 5-Passenger*

**$1650**
*35 H. P.*
*36-in. Wheels*
*112-inch Wheel Base*



## The Car To Buy

THE most important thing you want in an automobile is

***Dependability*** What better proof of absolute reliability can be asked than the record of the 1911 Moline in the recent Glidden Tour, the severest run ever made with an automobile.

The next thing you want is

***Style*** The grace and beauty of the two cars pictured here tell their own story.

And then you want a modest

***Price*** $1600 for 4-Passenger Toy Tonneau, $1650 for 5-Passenger Touring Type. Point by point the 1911 Moline will stand comparison with cars costing from $500 to $1000 more. Write for Catalog 61.

## The Car To Sell

DEALERS find it easier to sell a car that has won widespread

***Popularity*** The result of the recent Glidden Tour has set everyone talking about the 1911 Moline. Everyone wants to see the car which made such a wonderful record.

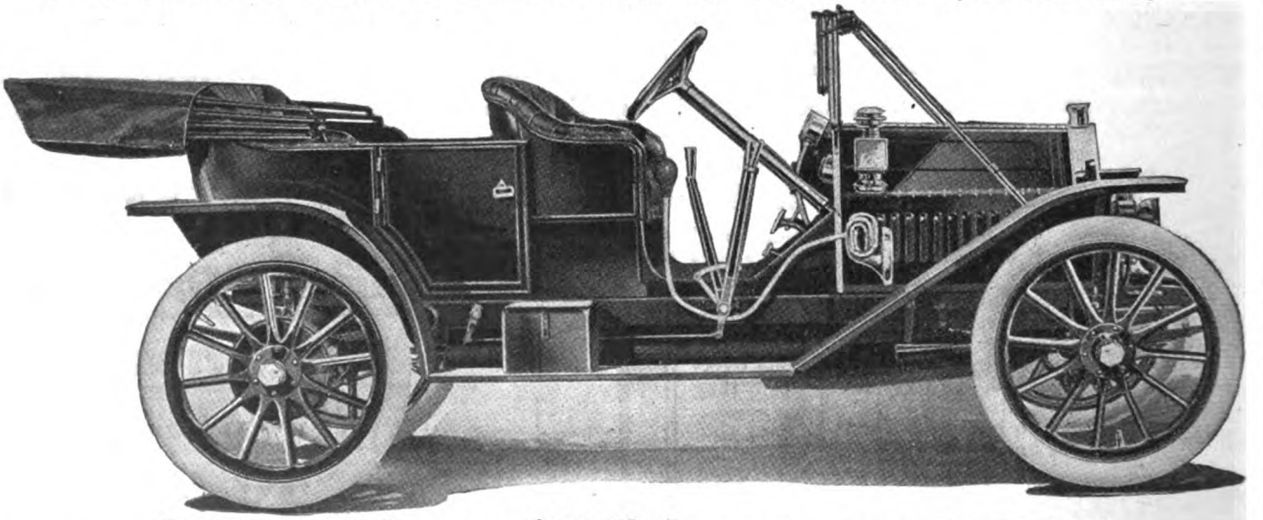
No other car has more

***Merit*** Every feature of the 1911 Moline is of tested and proven worth.

The Moline gives customers the

***Best Value*** Positively the highest class car ever offered for the price. Dealers will find not only profit but satisfaction in selling the 1911 Moline. Write quickly for territory.

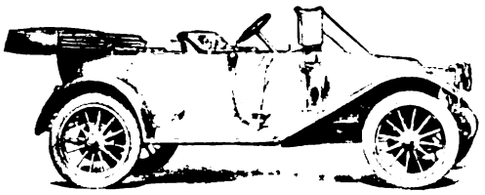
**MOLINE AUTOMOBILE CO.** Licensed Under Selden Patent **61 Root St., E. Moline, Ill.**



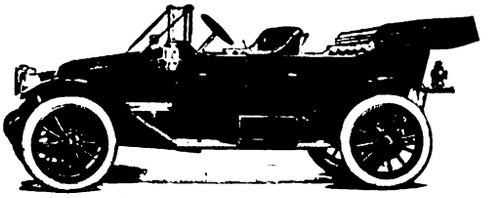
*Toy Tonneau, 4-Passenger,* **$1600** (Same specifications as Touring Type)


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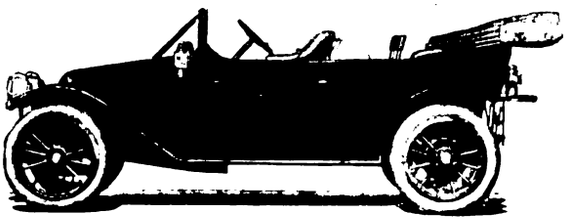
# Franklin "The Car Beautiful"



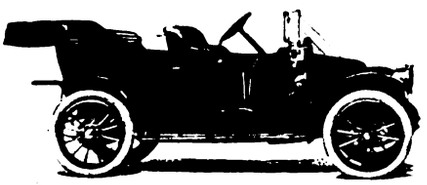
Model D, with four-passenger torpedo-phaeton body



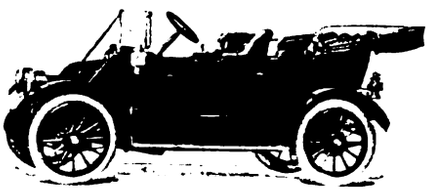
Model D, with five-passenger open body



Model H, with seven-passenger open body



Model M, with five-passenger open body



Model G, with four-passenger open body

Utmost satisfaction in the use of a motor car demands one selected to suit the individual requirements and taste.

Each Franklin is designed to meet a definite demand, and each combines everything that gives grace and distinction of design, efficiency and dependability of operation.

Franklins for 1911 are made in four chassis sizes and horse powers. All are of the same high quality. Two chassis have six-cylinder motors, and two have four-cylinder motors, with eleven styles of open and closed bodies.

The distinguished types of body with the graceful new hood, the lines of which blend harmoniously with the body, make the Franklin the most beautiful car manufactured.

## List of Models and Specifications

**Model H,** with seven-passenger open body or double torpedo-phaeton four-passenger body.

Specifications: Six 4½ x 4½ cylinders; 48-horse-power; 133-inch wheel base; tires, rear 38 x 5½ inches, front 37 x 5 inches; weight, touring car 3300 pounds; price, $4500; wheel base of torpedo-phaeton, 126 inches; weight, 3200 pounds; price, $4500.

**Model D,** with five-passenger open body, double torpedo-phaeton four-passenger body or seven-passenger limousine or landaulet body.

Specifications: Six 4 x 4 cylinders; 38-horse-power; 123-inch wheel base; tires, rear 37 x 5 inches, front 36 x 4½ inches; weight, touring car 2800 pounds, torpedo 2700 pounds; prices, touring car $3500, torpedo-phaeton $3500, limousine or landaulet $4400.

**Model M,** with medium five-passenger open body or seven-passenger limousine or landaulet body.

Specifications: Four 4 x 4 cylinders; 25-horse-power; 108-inch wheel base; tires, rear 34 x 4½ inches, front 34 x 4 inches; weight, touring car 2300 pounds; price, $2700; limousine or landaulet, price, $3500.

**Model G,** with four-passenger open body, is the only high-grade small car built in America.

Specifications: Four 3⅜ x 4 cylinders; 18-horse-power; 100-inch wheel base; tires, rear 32 x 4 inches, front 32 x 3½ inches; weight, 1850 pounds; price, $1950.

Special runabout, G type, with single torpedo-phaeton two-passenger body.

Specifications: Four 3⅜ x 4 cylinders; tires, rear 32 x 4 inches, front 32 x 3½ inches; weight, 1800 pounds; price, including top and glass front, $1950.

Standard equipment, all models, includes top.

H H FRANKLIN MANUFACTURING COMPANY Syracuse N Y
Licensed under Selden Patent

FRANKLIN AUTOMOBILE COMPANY Syracuse N Y
SOLE DISTRIBUTOR

BRANCHES

Albany N Y 242 Washington Avenue
Baltimore Md Mount Royal and Maryland Avenues
Boston Mass 671 Boylston Street
Buffalo N Y 683 Main Street
Chicago Ill 1450 Michigan Avenue
Cincinnati O 216 East Ninth Street
Cleveland O 6016 Euclid Avenue

Write for catalogue and name of nearest dealer

Deliveries are on schedule; selection of date is on order of sale

BRANCHES

New York City Broadway and Amsterdam Avenue
Pittsburg Pa 5926 Baum Street
Rochester N Y 74 North Street
San Francisco Cal 406 Golden Gate Avenue
St Louis Mo 1306 Olive Street
Syracuse N Y 242 East Water Street

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# THE NEW Continental Detachable Demountable Rims

**(United Rim Co.—Standard Universal Demountable Rim No. 3)**

# Reign Supreme for SIMPLICITY—WEIGHT—STRENGTH

**To meet the demand for a Detachable Demountable Rim created by the unparalleled success of OUR clincher demountable rim—we now offer to the motorist the most improved and up-to-date equipment for the easy, safe and quick changing of tires.**

The simplicity of the new Continental detachable demountable rim is one of its greatest assets. It is strong, easy to operate and has fewer parts than any other. Extra parts are heavy and mean more operating expense, wear on tires and less car service. No special type of tire is required. No arduous labor to remove side ring attachments—the common nuisance of other cumbersome and make-shift rims. No short stem staybolts to handle, place in position, or remove.



Push lever of tool away from you to open.



Lift off the upper (smaller) part of rim and then the tire can be easily removed.



Pull lever of tool towards you to close.

The mechanical perfection of Continental Demountable Rims is proven by their adoption by most of America's best car makers. The only rim of its kind actually sold and delivered in quantities. Not one dissatisfied user reported, although sold in larger quantities than all others combined.

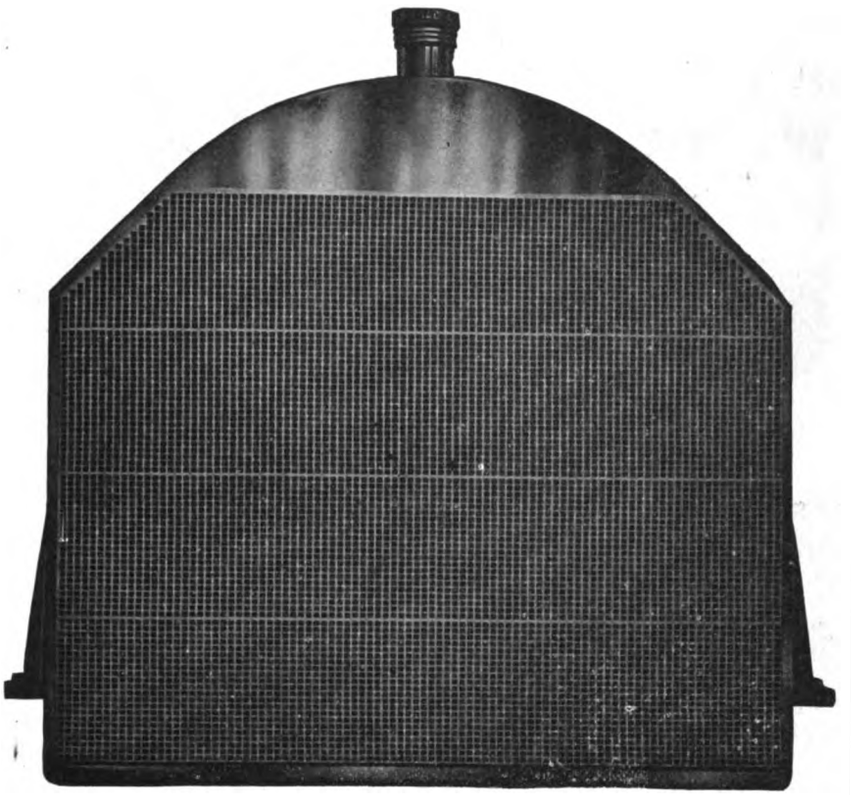
**Users of CONTINENTAL DEMOUNTABLE RIMS desiring the detachable feature need purchase the new detachable demountable rim only.**

**CONTINENTAL CAOUTCHOUC COMPANY**

**1788-1790 Broadway, New York City**

**(Branches and Agencies in 30 different Cities)**


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¶ Good advice—

# Put Up a Good Front —then make good.

¶ That's what MAYO RADIATORS are doing and have been doing for years on America's best known and best liked cars.

¶ The list has increased as fast as we were able to take care of it.

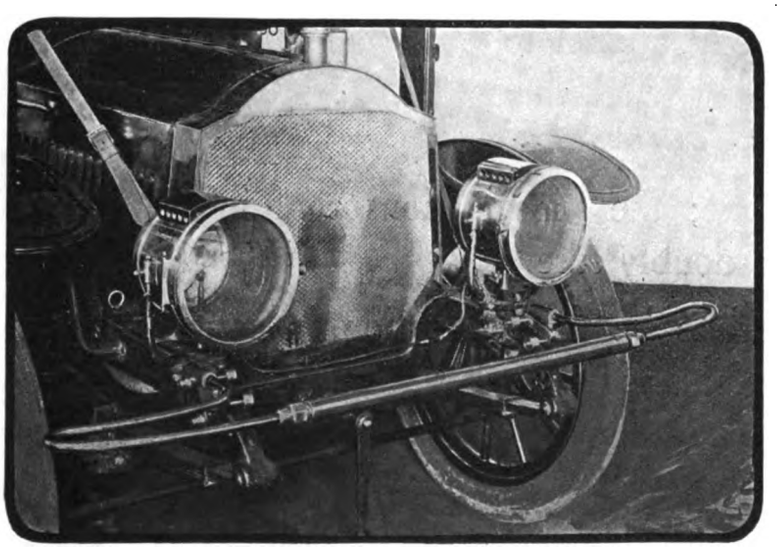
¶ The superiority of MAYO RADIATORS was long since established.

¶ MAYO RADIATORS today are simply living up to their reputation than which nothing better could be said.

**MAYO RADIATOR COMPANY**
**New Haven, Conn.**

# Save Your Lamps, Radiators and Fenders

by using the



# SAFETY Auto Bumper

Can not rattle.

Has many times the resiliency of any Bumper wherein coiled springs are used.

The eye bolts and oiling mechanism are not removed from front spring in attaching the SAFETY BUMPER.

Our patent fastener clamps rigidly on car frame and no holes are drilled in the frame.

Can be put on car by anyone with a monkey-wrench.

It's position is high up on the car so as to amply protect lamps.

Manufactured Exclusively by the

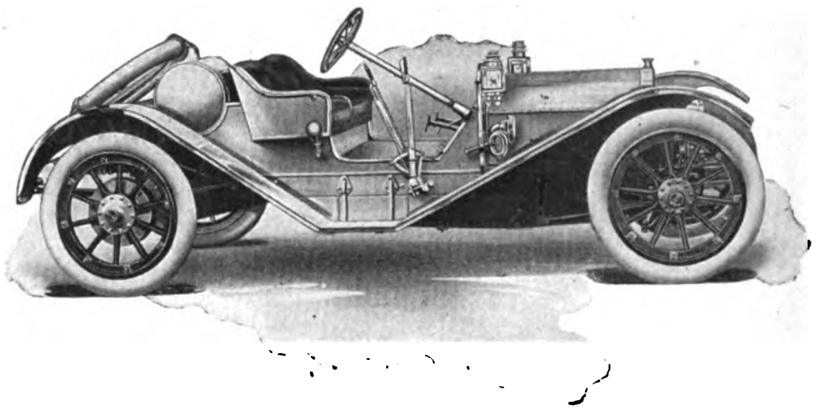
**ACCESSORIES MANUFACTURING COMPANY, 1926 Broadway, New York City**

Phone 3305 Columbus

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**We waited until we had actually done something before we started to talk about it.**

# The New S. G. V.



¶ The supply of adjectives and superlatives has been so nearly exhausted by motor car makers of high and low degree that some sense of the fitness of things leads us to refrain from using them in describing the new S. G. V. car.

¶ Since S. G. V. cars will chiefly appeal to those who know what a motor car ought to be, an intimation of what the S. G. V. is will usually arouse instant interest.

¶ The car itself tells its own story; the specifications confirm it. The policy of manufacture makes assurance doubly sure.

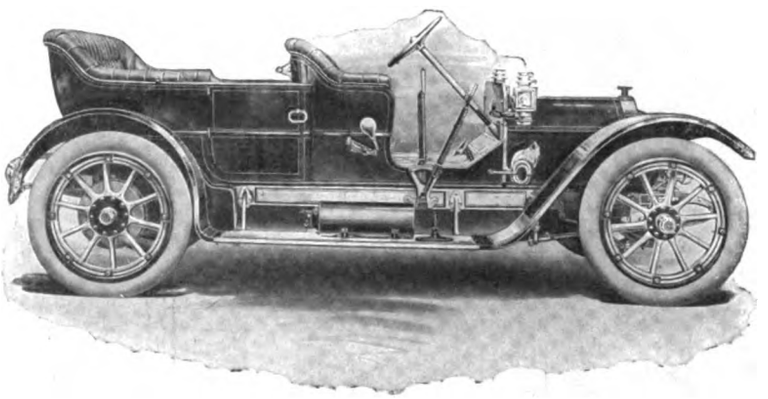
¶ The S. G. V. car is intended to be the realization in concrete form of a type and class of car that America has not yet produced. Europe has one or two—not many. These we have dissected, studied, absorbed, and, in the main, faithfully duplicated. There was no haste; instead, patient, painstaking

**ACME MOTOR CAR COMI**

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**The result is that the motor-wise among the trade and public are now doing the talking for us.**

# is the Reason



perseverence. It was not merely a manufacturing proposition. The soul of a motor car was what we had to have, and it was elusive.

¶BUT WE GOT IT. Every single S. G. V. car made will have it. It naturally means an extremely limited production. The possible output of S. G. V. cars this season is 300. These we plan to distribute through a half-dozen of the largest distributing centers, New York, Boston, Philadelphia, Chicago, San Francisco and where we already have agencies established.

¶While but comparatively few may possess S. G. V. cars this year, we wish as many as possible to become familiar with what they are. To this end, we will send to anyone genuinely interested detailed information and specifications. They are worth while.

**A N Y, - - - Reading, Pa.**

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# The Dayton Motor Car Co.

## Dayton, Ohio

place the largest individual order ever given for demountable rims. All 1911 Stoddard-Dayton and Courier cars will be equipped with

# THE STANDARD UNIVERSAL RIM

MANUFACTURED BY

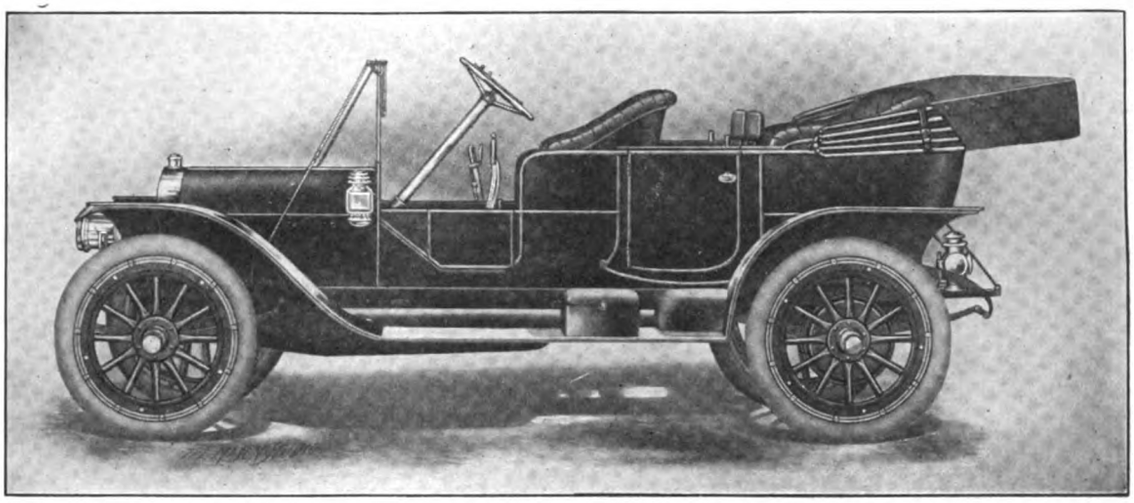
## The United Rim Company

### Akron, Ohio

The wholesale adoption of the Standard Universal Rim by representative automobile manufacturers is the best argument in favor of its practical and desirable demountable and quick detachable features.

# FITS ALL TIRES


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1911 Model R 40 H. P. Touring Car. Price Equipped $3300.00

QUALITY Knox QUALITY

# Quality Is What You Get When You Buy a Knox

**RELIABLE MOTOR CARS MANUFACTURED BY RELIABLE MAKERS**

¶ KNOX motor cars are the result of years of experience in manufacturing high grade cars exclusively and KNOX water cooled types have many times shown the superiority of up-to-date construction ever since their introduction.

¶ KNOX types and features of construction are not copied from other makes, but are designed and manufactured in a completely equipped factory and under the supervision of a competent engineering department.

**Knox Features are Unit Power Plant, Three Point Suspension, Cylinders Made with Detachable Heads and Valves in the Head, De Dion Lubricating System, Three Plate Clutch, Straight Line Shaft Drive, Etc.**

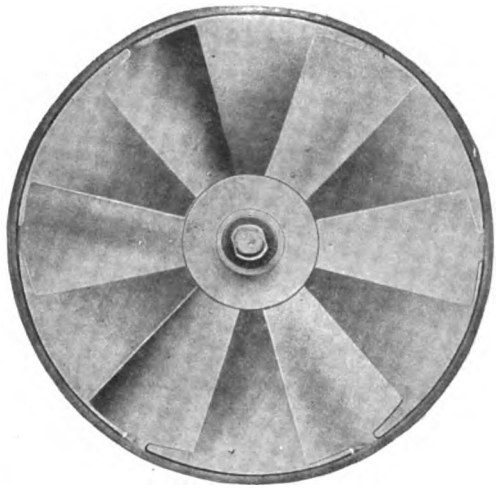
**WRITE FOR INFORMATION AND CATALOG.**

## KNOX AUTOMOBILE CO., Springfield, Mass.

Licensed under Selden patent.

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# THE McCORD BALL BEARING AUTOMOBILE FAN



**Unquestionably the**

**MOST EFFICIENT**
**MOST DURABLE**
**MOST SATISFACTORY**
**MOST POPULAR**

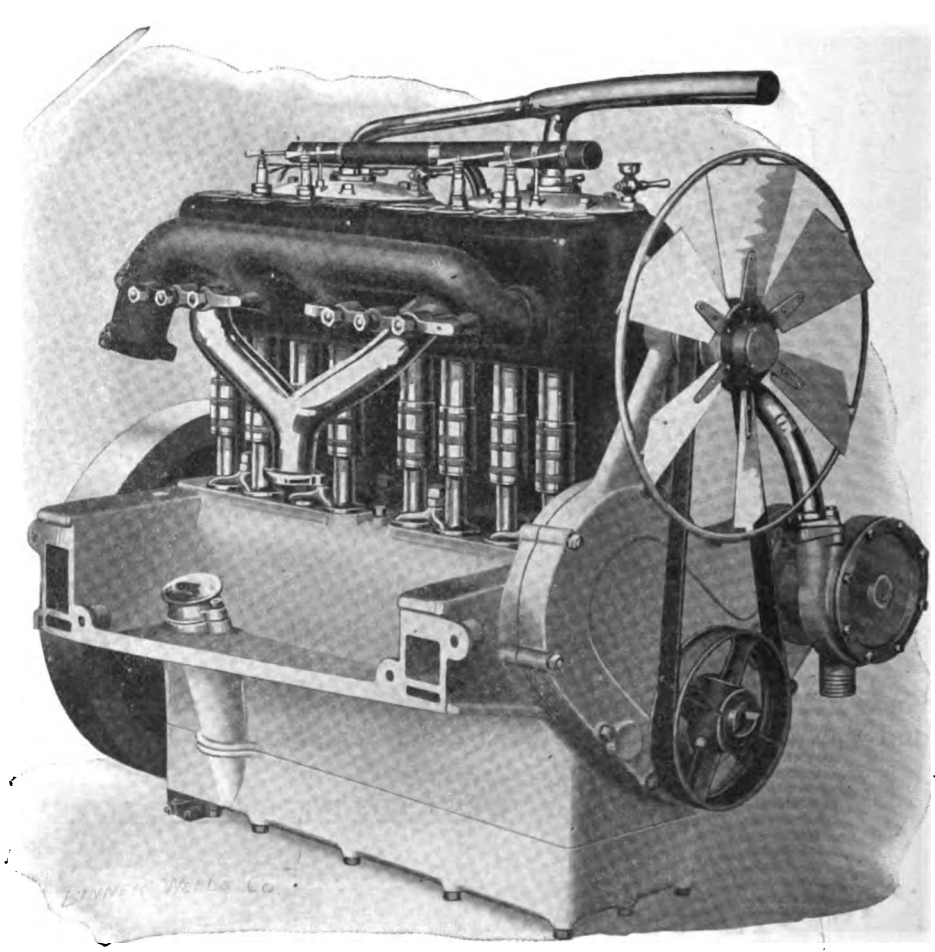
**Fan Produced.**

## There is a Reason

**One piece reinforced or individual blades—steel or aluminum—designed and built entirely in our own factory resulting in—**

**The highest grade of construction at the lowest price.**
**Fans in quantities and when you want them.**

**YOU will see them on the up-to-date motors—are they on yours?**



**McCord Manufacturing Company**

**DETROIT**

**CHICAGO NEW YORK**


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# The Packards

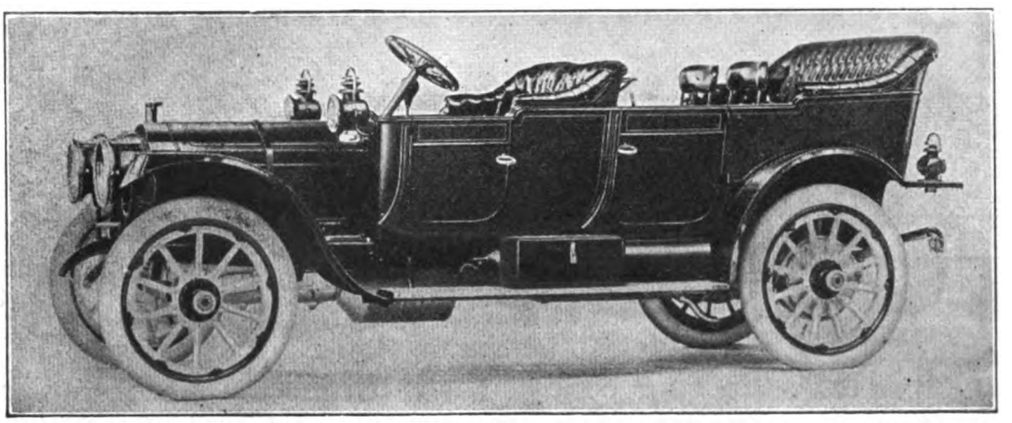
## of 1911 has—the
# Truffault-Hartford Shock Absorber




THE Truffault-Hartford is the Standard Shock Absorber. Used in all important motoring events. Regular equipment on the best cars. Sold on a Guaranteed-to-give-satisfaction basis—it always makes good. Will fit any car and make any car fit for any road.

# AS REGULAR EQUIPMENT

**THE 1910 PACKARD, too, was Truffault-Hartford equipped at the factory**



1911 PACKARD TOURING CAR TRUFFAULT-HARTFORD-EQUIPPED

**HARTFORD SUSPENSION CO., 164 Bay Street, Jersey City, N. J.**

New York, 212-214 West 88th Street
Chicago, 1458 Michigan Avenue
Boston, 319 Columbus Avenue
Philadelphia, 250 North Broad Street


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# Attention—Dealers!

This advertisement was written on just the same lines as we talk to you about

## THE SELDEN MADE BY THE FATHER OF THEM ALL CAR

A statement of facts concerning SELDEN CARS—the new 1911 models, four and six passenger torpedo cars with the torpedo and straight line effect more pleasingly carried out than in any other car built. These have drop frames, 125-inch wheel base, large wheels, and three-quarter elliptic rear springs; are classy, powerful, easy-riding and easy-running—foredoors—surely. A full 100 cents value for every dollar you pay for them.

Along with these two models, we will continue to manufacture five and seven passenger touring cars, on about the same lines as our touring cars of last year. These were tremendously successful cars last year, and we predict another big year for them.

The SELDEN CAR stands for every desirable development in the automobile—from the powerful, perfectly constructed engine to the evenly balanced quality parts that go to make the finished car. You don't need greater speed or power than the SELDEN gives you—sixty miles an hour if needed. It takes a speed indicator, however, to know the car is going that fast. You would never know it, it rides so easy.

## SELDEN CARS for 1911

**are made in five models**
**two distinct chassis**

## $2250 to $2600

Every car fully equipped for touring. Think of it! A perfect car, fully equipped and a factory guarantee at the right price.

If you are in the market for a car, you owe it to yourself to see the SELDEN before making your final selection.

Write for name and address of nearest SELDEN dealer. If you are a dealer and looking for a good live proposition, get in touch with us. Your territory may still be open. Write for 1911 catalogue and literature.

## SELDEN MOTOR VEHICLE COMPANY

**GEORGE B. SELDEN, Pres.** Licensed under Selden patent. **ROOHESTER, N. Y.**

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# AT YOUR SERVICE



¶Our Engineering Department is at the disposal of anyone, whether customer or not, for advice and suggestions as to the proper means of best meeting and taking care of any bearing applications.

¶We are daily making blue print lay-outs of various motor car bearing applications for foreign as well as domestic makers.

¶Ten years constant study on this line of work has given our Engineering Department data and experience of which the majority of prominent engineers avail themselves.

¶Your blue prints, sketches and data will be used for your benefit solely. Can we serve you?

## Timken Roller Bearing Co.

CANTON, OHIO


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# Uniformity Again

**And still we have not done repeating that word uniformity.**

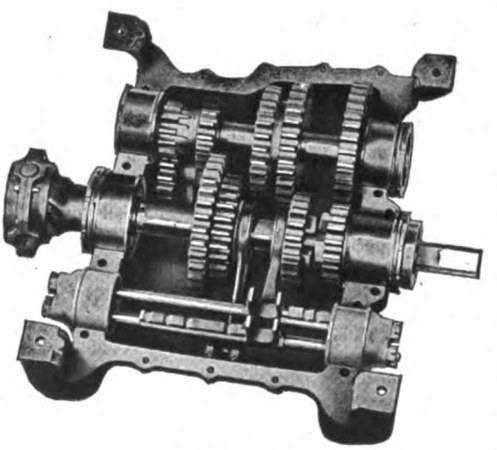
**A ball may be a perfect sphere, exact to the tenth of a thousandth of an inch. It may be precisely equal in diameter to all the other balls in the bearing. The races themselves may be truly circular outside and inside, perfectly polished, flawless to the microscope and the micrometer. And yet that bearing may not endure even moderate loads.**

**What is lacking?**

**Uniformity again — but this time uniformity in molecular structure — in hardness, density and chemical make-up.**

**If we removed half the balls from a given bearing and replaced them with balls of putty, the fact that the putty balls were the same** size as the steel balls would not help the bearing. Nor would matters be improved if the balls were lead, or even of good tool steel. They must be exactly like their mates in the bearing — exactly as hard, as elastic, as tough and as dense in grain.

A ball which is not homogeneous, whether mechanically or physically, which has hard spots or soft spots, or which is materially harder or softer **than its fellows, is just as much an enemy to the durability of the bearing as if, instead of being hard or soft, it were over or under size, for the immediate effect of wear will be to modify its shape or size in precisely the same manner.**



Transmission of Locomobile "30" Using HESS-BRIGHT Ball Bearings.

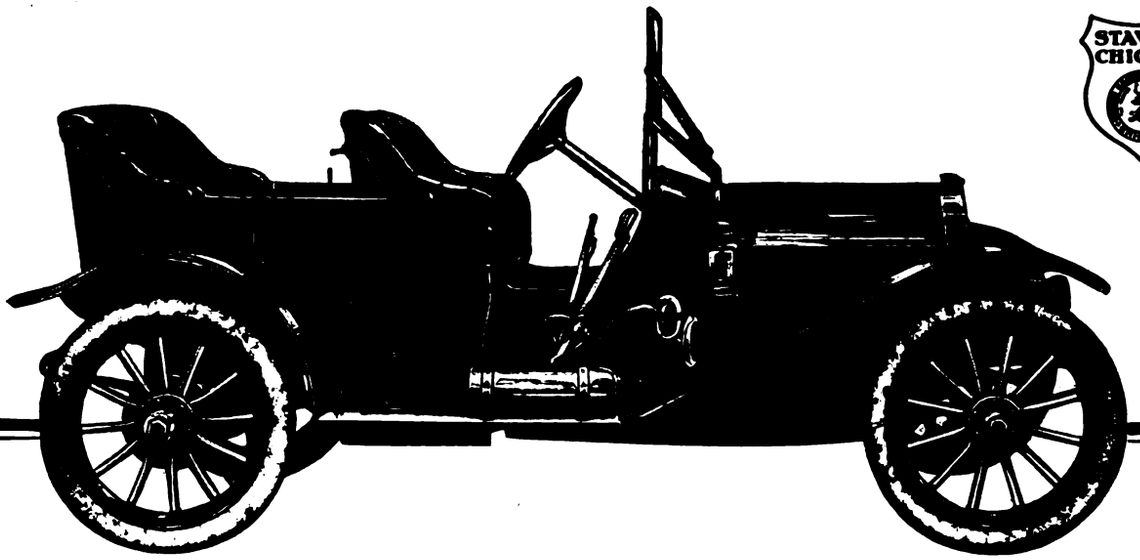
**HESS-BRIGHT BALLS ARE HOMOGENEOUS!**

Every portion of a HESS-BRIGHT ball is like every other portion; every ball is like every other ball. Neither mechanical analysis nor physical test discloses differences sufficient to be perceptible in the performance of the bearing. And HESS-BRIGHT balls are harder, tougher and more durable than any others.

THE HESS-BRIGHT MANUFACTURING CO.

2109 Fairmount Avenue
PHILADELPHIA, PA.

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# A Common Sense Talk With the Dealer

From now on *selling automobiles* is going to be a mighty different proposition from what it was in the past.

There's a heap of *trouble* just ahead of hundreds of dealers and some of them will shortly hoist a *signal of distress*.

We believe that more automobiles will be sold during 1911 than 1909 and 1910 put together. We believe the automobile business is as *permanent* as any business could be and that there is absolutely *no* foundation for the talk of some people that the demand is going to "*fall off.*"

*But*, here is where the trouble lies:

The demand from now on will be a *very much different* demand than it was a few years back. It is going to take *more* than "quick deliveries" to sell cars, and automobile salesmen will find themselves up against the "*stiffest*" selling proposition in the history of the business.

*You*, Mr. Dealer, may be deciding your future in the automobile business when you "tie up" with a manufacturer for the season just ahead. *Quality* agencies in the future will be clamored for by the *best* of agents and every dealer ought to think *hard* about the cars he will sell from now on.

## *The Season of 1911*

The law of the "survival of the fittest" will prevail and it is predicted that a number of cars *cannot survive* the careful scrutiny of 1911 buyers. This may mean that *certain* cars will discontinue—and, *not unlikely*, certain dealers.

The way to be sure for 1911 is to "size up" carefully the *firm* back of the car. If it is a firm that has "made good" for years, a concern that has weathered the business storms of the last quarter century and more, if it is an institution that you have every reason to believe is *in the automobile business to stay*—THEN "TIE UP" TO SUCH A CONCERN.

After 30 years of splendid success as manufacturers of high class pleasure vehicles, during which time we welded the friendship and goodwill of one of the greatest force of live dealers who ever sold goods, we are *now* preparing to organize and develop a *similar* Association of Dealers in our Automobile Department.

To this end we have a proposition that is different *—really something new in the business*—and we are confident that every automobile dealer in this country ought to find out what it is no matter what cars he is handling now.

## *About Our Cars*

We *always* had one of the greatest organizations of fine carriage builders in the world; now we have attracted and developed one of the best automobile building organizations in the business, and between the two we are turning out a car that shapes up with the very *best* of them.

The length of the wheel base, the power of the engine, and the prices are all important to you—and we are anxious to show you what they are—but JUST NOW you are most interested in the *nature of the dealers' proposition* back of these cars.

*We have the car*—we can satisfy the most knowing, the most careful, the most finnicky dealer in the country as to that. *We have the sales organization* to help, an organization with one of the cleverest selling plans back of it ever developed. *We have the firm to back it*—a firm that could never afford to risk its 30-year solid reputation by turning out anything but a 100-point car. And we certainly have

## *The Proposition*

We cannot go into the detail here. Our proposition is for those *who can appreciate it* and are willing to put a postage stamp against the opportunity to find out.

It includes a remarkably good car, backed by a "13-inch gun" *advertising campaign.*

It includes a *Sales Department* working hand in hand with you right in your own territory, drumming up business a dozen different ways and turning it over to you.

It means a splendid plan for *following up and permanently serving* every buyer of a car, so that 100% of them will be "repeat sales."

It includes *a well-established firm* with a 30-year reputation for square-deal business and "quality" to back you up. And it means a *price proposition that will open your eyes.*

The question for you to decide is: "Can you afford NOT to send for the proposition?" *You simply can't* since it comes to any dealer who will write. MAKE IT A POINT TO WRITE TODAY. Address

**STAVER CARRIAGE CO., Dept. 9106 CHICAGO**

MANUFACTURERS OF THE

# STAVER-CHICAGO

30, 35 and 40 H. P. $1,450 to $2,000

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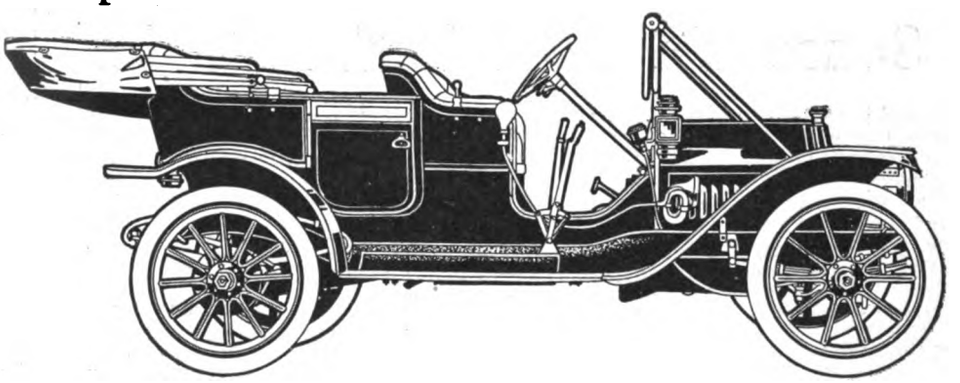
# THE "EVERITT 30" $1350

Licensed under Selden patent.

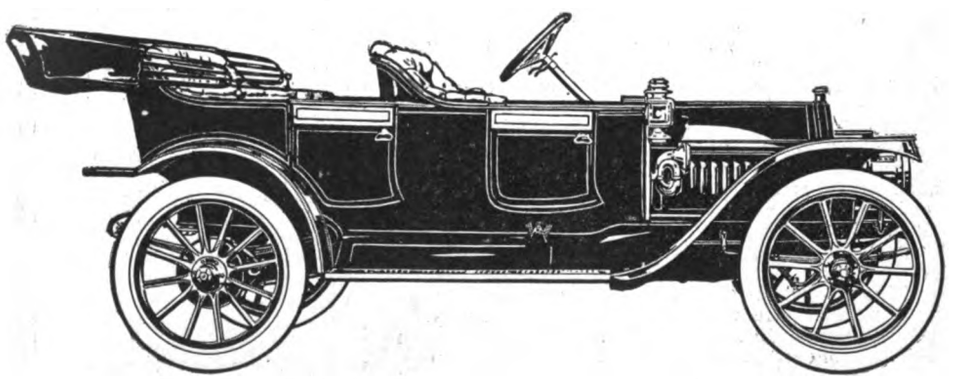
## The Model of the Year 1911

This is the low-price car which has the most of the features that will be called for in 1911.

This is the car which others will be most anxious to imitate in performance.



Finest Mohair Top and Brass Framed Wind-Shield $100 Extra.



Fore Door Body $50 Extra; Finest Mohair Top $75 Extra.

**$1350**

Complete with Magneto, Battery, Horn, Generator, Gas and Oil Pumps and Full Kit of Tools. F. O. B. Detroit.

### SPECIFICATIONS

COLOR—Royal Blue with mahogany and solid brass trim. French gray running gear.
SEATS—4 or 5 passengers. Rear seat 52 inches wide.
FRAME—Double drop
WHEEL-BASE—110 inches.
GAUGE—56 inches.
TIRES—34 x 3½ inches.
BRAKES—Two sets contracting and expanding on rear wheels.
HORSEPOWER—Thirty.
CYLINDERS—Four, en bloc.
BORE—4 inches.
STROKE—4¼ inches.
COOLING—Water. Gear driven centrifugal pump on same shaft as magneto.
RADIATOR—Genuine honey-comb.
IGNITION—Magneto and battery
CLUTCH—Improved cone with coil springs.
DRIVE—Shaft.
TRANSMISSION—Selective sliding gear on rear axle. Ball lock makes it impossible to cross and strip gears.
SPEEDS—Three forward, one reverse.
LOCK—Gear shifting lever can be secured with ordinary padlock, protecting owner against unauthorized use of car.

The mere announcement of the "Everitt 30" last season brought inquiries from hundreds of dealers who wished to handle the car to be produced by B. F. Everitt, Wm. E. Metzger and William Kelly.

An output of 4000 cars for 1911 will enable us to take care of a number of additional dealers.

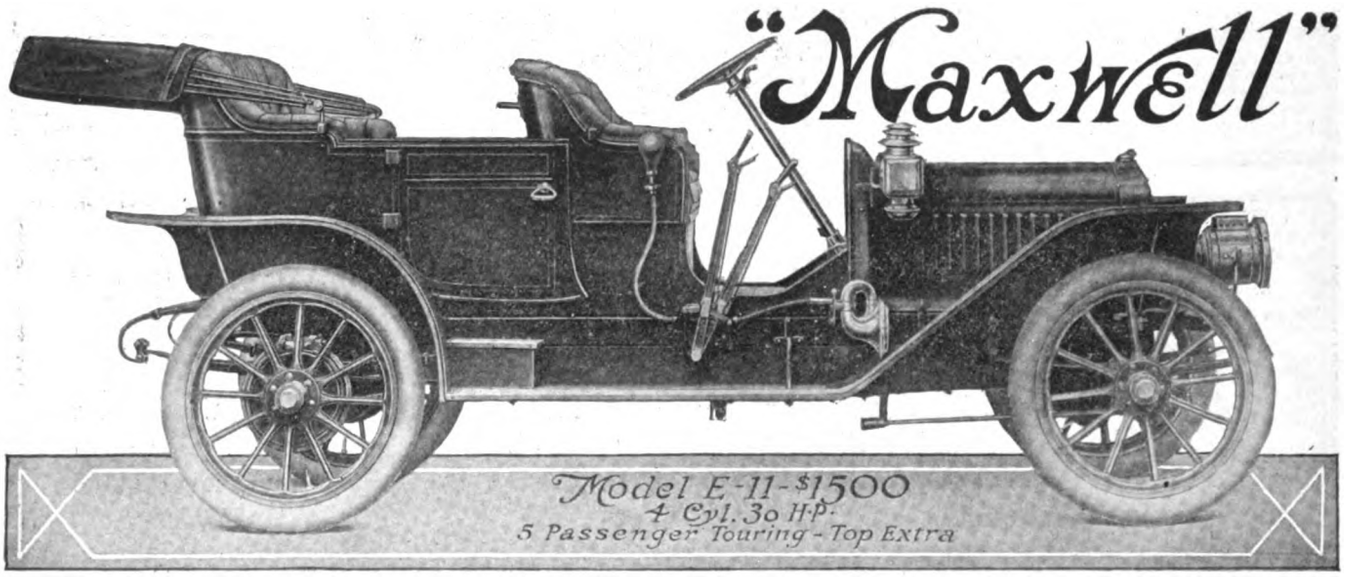
**For further information write the factory**

**METZGER MOTOR CAR Co. DETROIT, MICH.**


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# Maxwell Wins Munsey Tour!

## Outclasses Entire Field of 28 Contestants and Easily Captures Both Class and Sweepstakes Trophies




## Here's the Car—Model E-11 4 Cyl. 30 H.P.—$1500

### Sweepstakes Trophy—What It Means

It means that after traveling 1578 miles over all kinds of roads, the technical committee of the American Automobile Association, pronounced the Maxwell Model E-11 in better condition than any other car, in any class regardless of power or price, out of a field of 28 contestants. If you only knew the terrific punishment the cars withstood, and how the strength and plugging qualities were taxed to the utmost you would agree with us that the winning of the Sweepstakes Trophy in the 1910 Munsey Historic Tour was indeed a no mean accomplishment.

### Does It Prove Anything?

We believe in endurance runs because they prove just what we want to prove—that the Maxwell is the most reliable and efficient car on the market—that its strength and uniformity of construction ensures freedom from trouble, and the assurance that once set out on a trip, you will surely get back. The Maxwell represents composite perfection—no one element is emphasized at the expense of another—thus ensuring years of staunch and reliable service with an equal distribution of wear and tear.

### Consistency Proves Merit

Victory suggests merit. The occasional victory may be more luck than merit. But to win steadily and consistently from beginning of the season to the end, from coast to coast in all sections of the country offers convincing proof of real merit. Such is the record of the Maxwell. In the Glidden Tour this year the above type of car, with its companion Model G-11 made the BEST TEAM SCORE. Everywhere throughout the country it has repeatedly won, and for number of winnings, stands without an equal.

**If you intend getting a car—don't buy until you see and have tried this Maxwell. That is all we ask—the result is a foregone conclusion. Let us tell you how we help Maxwell owners—how we publish a semi-monthly magazine to keep them posted on their cars. Let us send you our latest catalog and other literature. They will positively save you money. A postal will do. Just say "Mail Books."**

**Sale of Maxwells to Date**

| | |
|---|---|
| Sold to July 31, '10 . . | 33,759 |
| Sold during Aug., '10 . | 1,720 |
| Maxwells in use today . | 35,479 |

**WATCH THE FIGURES GROW**

## MAXWELL-BRISCOE MOTOR CO.

**VALE STREET, TARRYTOWN, N. Y.**

*Licensed under Selden Patent—Members A. L. A. M.*

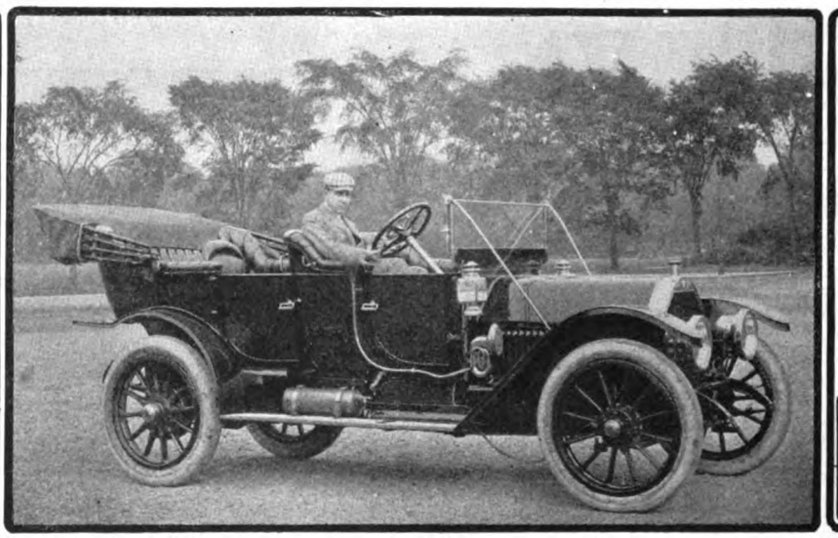
**MAXWELL FACTORIES**

| | |
|---|---|
| NEWCASTLE, . . . | IND. |
| PROVIDENCE . . . | R. I. |
| TARRYTOWN . . . | N. Y. |
| KINGSLAND POINT . | N. Y. |

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The hand-propelled elevator ascends jerkily: the electric car smoothly and steadily. Like the six-cylinder motor, it runs with no interval between power impulses.






The long lever produces the same result with less power, less effort. So, with the same power, the long-stroke motor produces greater speed and hill-climbing ability.

# The 1911 Thomas Flyer—Better Than Ever

***A wonderful improvement. A new era in automobile construction.***

THE long-stroke, large-valve, six-cylinder motor, with the new 3-4 elliptic chrome vanadium springs, is a distinct boon to automobile owners. They are used in America *exclusively* in Thomas cars. In Europe the long-stroke, large-valve motor is used generally.

These features produce unquestionably the quietest, smoothest running and easiest riding car. Noise, jars, jerks and vibrations are eliminated.

Flexibility is doubled. The car gently bounds over crossings. Riding over the ruts and bumps of bad roads is a really pleasurable sensation. The necessity for transmission gears is almost removed. The motor develops over 20 per cent more power—our 6-40 develops 60 horse power on brake test.

The Thomas car is pre-eminently the car for conservative people who love quiet, ease and comfort.

**Six Cylinders**
***(No interval between impulses)***
**Increases flexibility over the four-cylinder by over 33⅓ per cent.**

**Long Stroke Motor**
***(The long swinging stride)***
**Gives equal power with fewer revolutions.**

**Large Valves**
***(Unobstructed respiration)***
**Give much more power and flexibility at low and high motor speeds.**

The greatest improvement since the change from two to four cylinders. All high class cars *must* eventually adopt them.

## OWNERS WILL TELL YOU

"I drove 265 miles through towns and over country roads and hills without once changing from high gear."
—*C. E. Jones, Akron, Ohio.*

"I think this car is unsurpassed in endurance, gracefulness and easy riding, and can do anything that any touring car manufactured can."
—*J. J. Nichols, Chicago, Ill.*

"In the Thomas Flyer I have the most flexible and the most comfortable automobile to be had."—*Christopher Strassheim, Sheriff, Cook County, Ill.*

"Much pleased with the smoothness of its running. The engine is a great hill climber."
—*Geo. G. Genther, Westboro, Mass.*

"I think that in this car you have reached perfection in mechanical construction."
—*B. F. Thomas, Olean, N. Y.*

"We thought we were making a mistake in getting so high priced a machine, but it has saved us more than the difference of cost on repairs."
—*Jacob C. Dold, Buffalo, N. Y.*

"The Thomas 6-40 has given splendid satisfaction, and I am proud of it."
—*Elias Lyman, Burlington, Vt.*

"This car has run 10,500 miles up to date. The car has been very satisfactory indeed."
—*Henry Fisher, Redlands, Cal.*

"My 'Big Six' car, which I have had two years, has travelled over 30,000 miles with a total expense of $2.12 for up-keep, excepting tire charges."—*Julius M. Goldenberg, 1628 Bolton Street, Baltimore, Md.*

Each 6-40 motor develops 60 H.P. on test. Touring Car (5-pass.), Flyabout or Tourabout, $3,750; Touring Car (7-pass.), $3,850; Fore-door Touring Car (5-pass.), or Torpedo Flyabout, $3,900; Fore-door (7-pass.), $4,000; Limousine (7-pass.), $5,000; Landaulet (7-pass.), $5,100.

6-70 Touring Car (fastest and most powerful stock car built), Flyabout or Runabout, $6000; Limousine $7500; Landaulet $7600.

The Thomas Flyer
NEW YORK TO PARIS WINNER
WORLD'S CHAMPION—STILL UNDISPUTED

4-28 Town Cars (the most suitable car for city and suburban service): Brougham $4000; Limousine $4100; Landaulet $4250.

**E. R. Thomas Motor Co., Buffalo, N. Y.** **Branches: New York, Chicago and Boston**

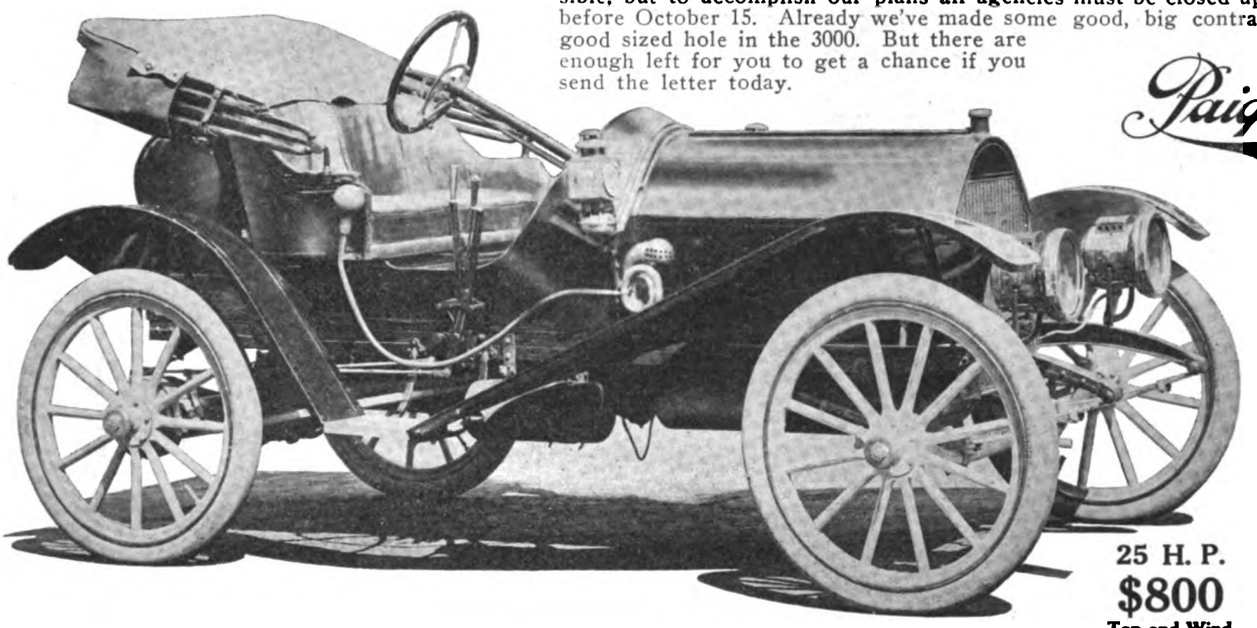
*Licensed under Selden Patent*

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# AUTOMOBILE DEALERS WRITE US TODAY

WE cannot possibly meet the demand for our $800 **Paige-Detroit** cars for 1911. All factory records were smashed by us last year. Orders kept piling in long after we notified dealers that no more **Paige-Detroit** cars could be had. But the dealers kept right on hammering for more—keeping the wires hot from all over the country. We shipped but one-tenth of the orders that came into our factory. This year it is going to be the same story. First come, first served, will prevail in every sense of the word. Therefore, this announcement. Get your application into the post-office before tonight. Let us show you how you can take orders in your city for this little wonder of an automobile. There is going to be but 3000 of them—**not one more.**

We want to distribute these cars, as far as they go, over as wide an area as possible, but to accomplish our plans all agencies must be closed up and allotments made before October 15. Already we've made some good, big contracts that has made a good sized hole in the 3000. But there are enough left for you to get a chance if you send the letter today.

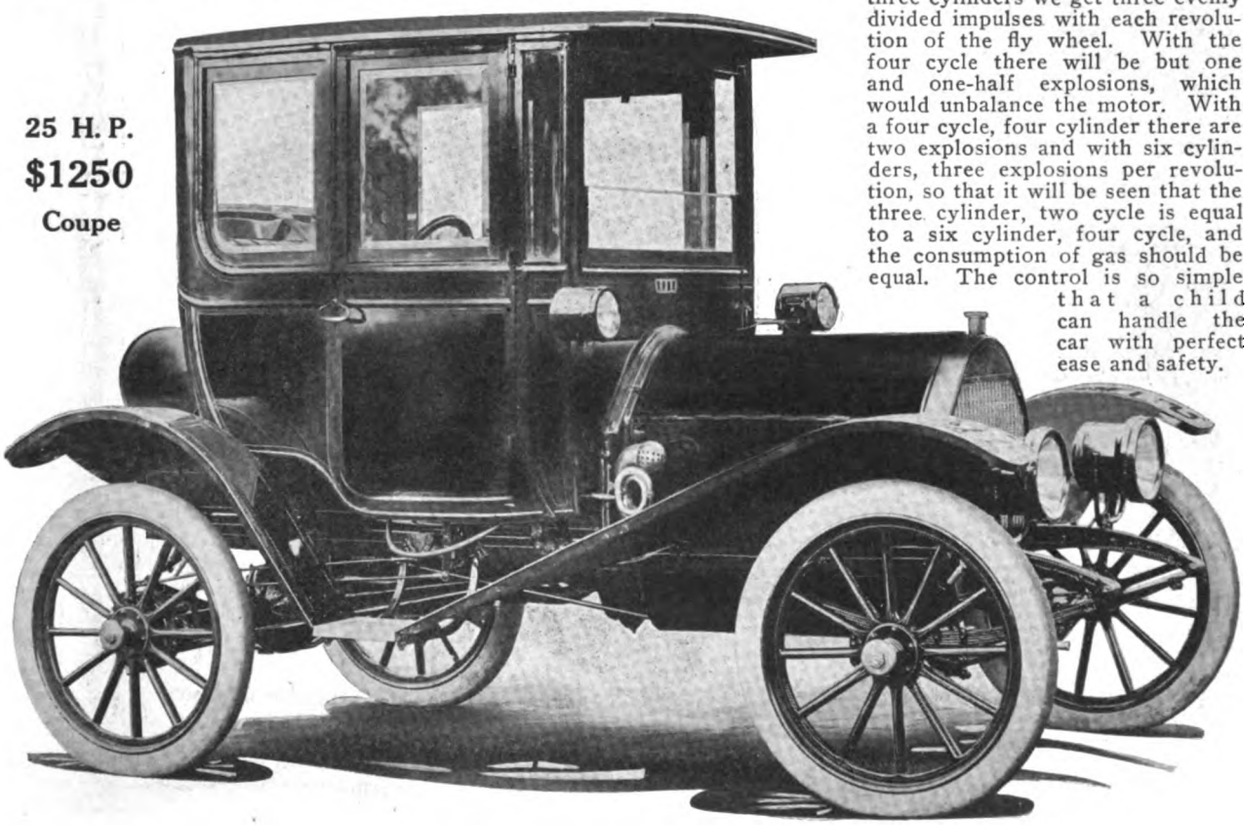


25 H. P.
$800
Top and Wind Shield Extra

## Remarkable Valveless Motor

The valveless motor is free from one hundred or more parts which are essential to the four cycle, such as valves, valve stems, springs, cams, push rods, rollers, rocker arms, cam shafts, etc., with all their bearings, fastenings, gearings and oilers. Each of these parts must be kept accurately adjusted and replaced from time to time as they become worn. The valveless motor practically has but three working parts—the crank shaft, piston and connecting rod. The valveless motor when properly built should wear indefinitely and cause absolutely no trouble as far as the motor itself is concerned.

We desire to call attention to the three throw crank shaft in the **Paige-Detroit** motor. With the three cylinders we get three evenly divided impulses with each revolution of the fly wheel. With the four cycle there will be but one and one-half explosions, which would unbalance the motor. With a four cycle, four cylinder there are two explosions and with six cylinders, three explosions per revolution, so that it will be seen that the three cylinder, two cycle is equal to a six cylinder, four cycle, and the consumption of gas should be equal. The control is so simple that a child can handle the car with perfect ease and safety.



25 H. P.
$1250
Coupe

Paige-Detroit

And if you can show the people of your city the **Paige-Detroit** $800 your garage will double its present reputation. And the first satisfactory applicant from a city gets the agency.

### Specifications

**Motor** and transmission built as a unit, suspended at three points, following the most approved practice. The **Paige-Detroit** three-cylinder, engine-bore 3¼ inch, stroke 4 inch, develops 25 H. P.—gives a speed of anywhere from three miles an hour to as fast as you care to ride. **Transmission:** Sliding gear, selective type; two speeds forward and reverse. Leather face cone clutch. **Oiling:** automatic force-feed oiler to all bearings and parts of motor. **Frame:** pressed nickel steel, specially strong, tough, durable. **Springs:** the two front springs are semi-elliptic; rear spring 2 inch full elliptic cross spring, supported on a bracket projecting from the differential housing. **Cooling:** Thermo-Siphon. **Ignition:** Atwater-Kent Spark Generator included as part of the equipment. **Carburetor:** of special design; best quality and highest efficiency. **Brakes:** internal expanding and external contracting brake bands on rear wheels. Ball bearings on front wheels. **Wheel base:** 90 in.; tires 32 x 3 in.; tread 56 in.

**Pressed steel body** of simple, graceful design. Body, radiator hood and gasoline tank enamelled and striped (not painted) with enamel baked on, giving hard, smooth, high finish that resists wear and weather.

### Write us today.

We also invite inquiries from those interested in the purchase of a strictly high-grade car. Catalog and full particulars sent on request.

**The**
**Paige-Detroit Motor Car Co.**
General Offices and Factories
245-255 21st Street
**Detroit, Michigan**

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No. 126 Front Axle

# Timken-Detroit Axle Talks—No. 3

APART from the mechanical side, the appearance of the front axle on a car often makes or mars a sale. There is a look of solidity, strength and efficiency about Timken-Detroit No. 126 front axle that is fully borne out in actual service.

Every forging on this axle, including the main forging—the "I" beam center—is made of specially heat-treated steel, each bar of which has been subjected to chemical analysis and physical tests. That's what makes **Timken Quality.**

Needless to say those axles whose most conspicuous feature is cheapness do not have back of them this rigid proving system. They may look very much the same, but they lack the safety, endurance and wearing qualities.

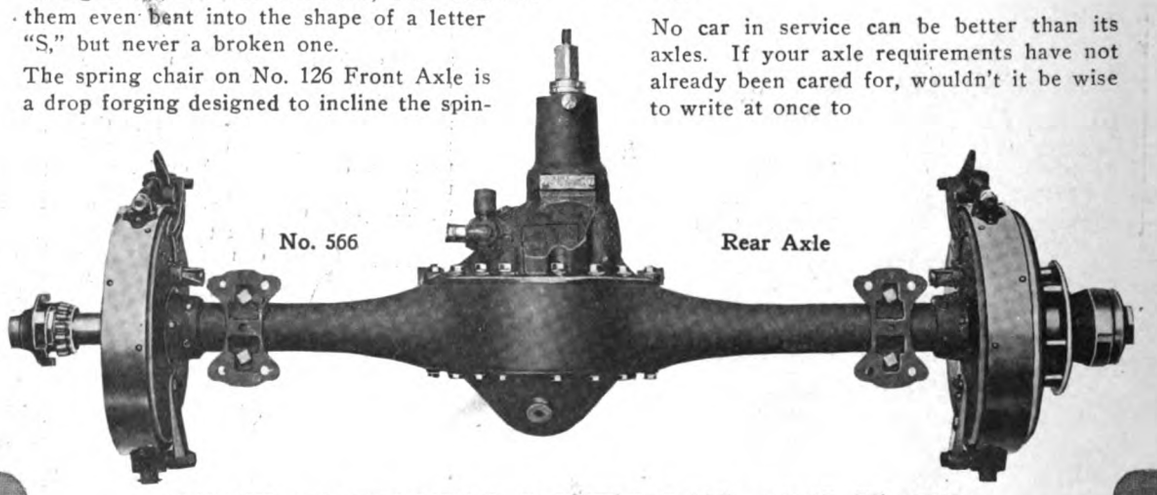
We have never known of a **broken** Timken-Detroit front axle. Axles have been returned to us damaged as result of collisions, etc.—some of them even bent into the shape of a letter "S," but never a broken one.

The spring chair on No. 126 Front Axle is a drop forging designed to incline the spindle at a proper angle so that there is a self-steering effect. This means easier handling of the car and maximum tire economy.

Note that this axle has "short series" TIMKEN ROLLER BEARINGS with straight cone holes. Each steering spindle is fitted with a hardened safety washer. The efficiency of this axle has been greatly increased by locking together the steering knuckle proper and the steering knuckle bolt.

Steering and connecting arms are forged with stop-lugs. These come into contact with adjustable bolt in the axle center proper, which can be locked to get the desired radius in steering—in a word, it regulates the angle or radius at which the wheels will turn. This is a very important advantage. There are other features including the basic principle of all axle success **—Timken Adjustable Tapered Roller Bearings.**

No car in service can be better than its axles. If your axle requirements have not already been cared for, wouldn't it be wise to write at once to



No. 566 Rear Axle

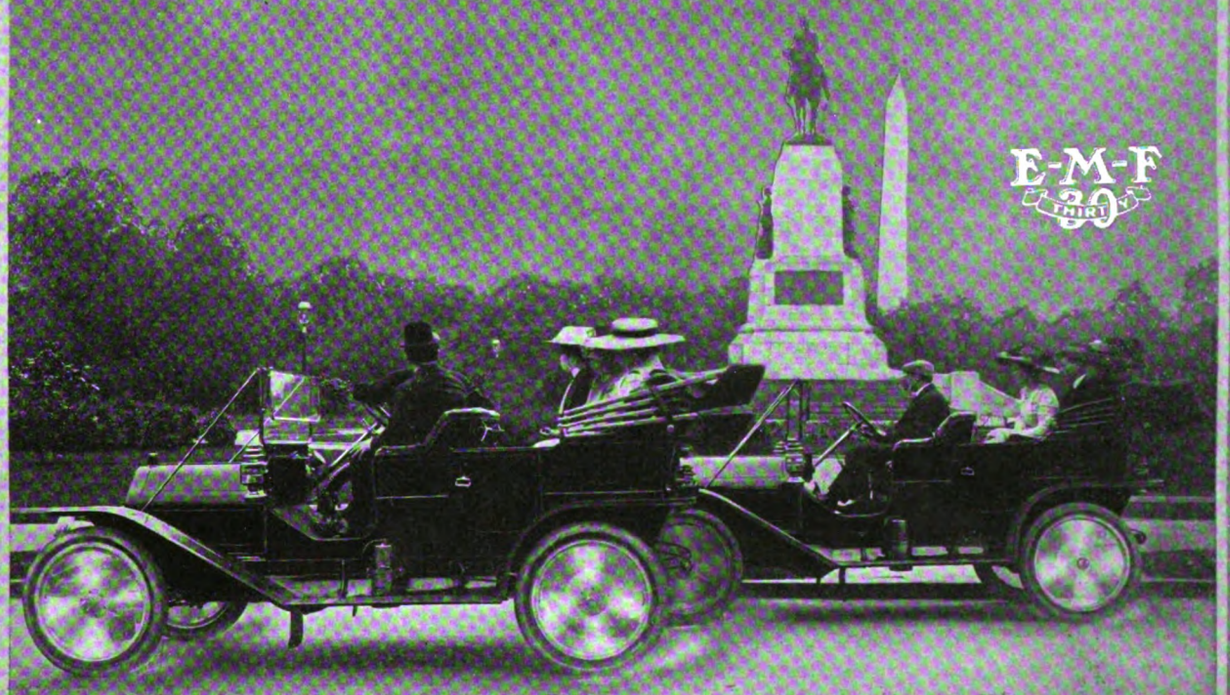
## THE TIMKEN-DETROIT AXLE CO.

**Detroit, Mich.**

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Happy indeed, in these Indian Summer days, is the owner of an E-M-F "30" motor car. Tonneau filled with friends, the power of thirty horse purring quietly under the hood, he moves swiftly over the beautiful drives in which his home region abounds, with a completeness of satisfaction absolutely unique

THE E-M-F COMPANY
DETROIT :: :: MICHIGAN




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# An Entirely New Measure of Value in the Motor Car Industry Has Been Created by

More than 20,000 buyers are now enthusiastic users of these cars while a year ago there were but 4,000.

The Overland FOR 1911

More than 1,000 dealers are now selling these cars while a year ago there were barely 50.

Licensed under Selden patent.

There must be something superlatively desirable in a car that could forge to the front in a single year, win the confidence of its buyers, and prove the most attractive and profitable of all lines for its dealers.

## Why not investigate for 1911 right now? Delay means disappointment. Half the people who want Overlands for 1911 will be unable to get them.

We start this season with 20,000 Overlands in use and with deposits already in hand for more than 18,000 of the new models just coming out.

Every Overland owner who appears on the road creates a further demand for this wonderful car and this fact is due to sheer merit—nothing else. Up to 1910 the cars were never even advertised to any extent.

People who have never before thought of buying a car are buying Overlands, because they are the first really good cars at a reasonable price. People who have owned other makes are now selecting Overlands because of their mechanical excellence. They are exactly what the average man should own because so simply built, so readily understood and maintained.

22 four-cylinder models from 20 to 35 horsepower
from $775 to $1675, including magneto and lamp equipment

**All 1911 Models include fore doors, at your option, at one price**

The improvements this year are mainly in refinements of design. Our master designers have this year created twenty-two highly attractive models largely based on foreign trend. They will take their place among the most approved cars in the world. No cars are made at any price with better style, lines or finish; no cars offer such mechanical qualities for anywhere near the same money; no cars will render better service at any figure save possibly in excessive power.

**The new Overlands** are made with fore doors and without —your choice at one price. The fore door models, for which most makers charge extra, sell the same as the open front. We do this because fore doors will undoubtedly be the coming vogue.

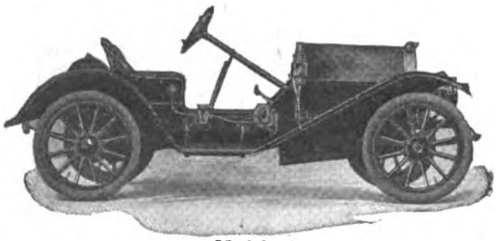
**We will continue to manufacture** five of the models produced in 1910, but, as the result of a large investment for new factory equipment, these five models as well as all new models, will be reduced in cost to the consumer.

**Overland prices for 1911** begin at $775 for 20 h. p., four cylinders; and $850 for a Torpedo Roadster.

The 25 h. p. Overlands sell at $1000 to $1095 according to style of transmission. The 30 h. p. Overlands sell at $1250. So does the Inside Drive Coupe.

The prices run to $1600 and $1675 for the finest cars possible in 35 h. p. with 118 inch wheelbase.

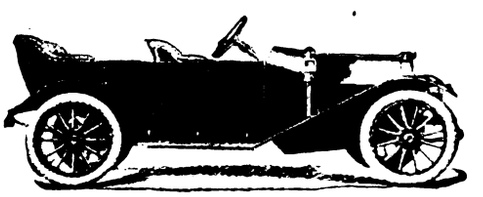
All prices include magneto and full lamp equipment.



Model 45

Send for our Advance Catalog showing the designs and specifications.

THE
**Willys-Overland Co.**
Toledo, Ohio
WEST CENTRAL AVENUE



Model 54


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THE MOTOR WORLD

Volume XXIV. New York, U. S. A., Thursday, September 22, 1910. No. 12

## TO PRODUCE FOREIGN TIRE HERE

**Pennsylvanians Join Hands with Germans to Manufacture Latter's Tire—Designed for Commercial Vehicle Use.**

For the American sale of Polack tires, as made by B. Polack, Inc., of Walterhausen, Germany, a new corporation has been formed under Maine laws, in which officers of the Pennsylvania Rubber Co., of Jeanette, Pa., are prominent and which is to be known as the Polack Tire Co. The tires will be manufactured by the Pennsylvania Rubber Co. and will be made under the processes and methods used in Germany. Herbert DuPuy, president of the Pennsylvania company, is president of the new company, and H. Wilfred DuPuy is treasurer of both concerns, with Seneca G. Lewis, general manager of the Pennsylvania company, as secretary. The vice-president and general manager is A. Hauschild, who with F. Poppe, a managing director in the German company, completed the arrangements on this side of the water on behalf of B. Polack, Inc. The men named, together with C. M. DuPuy and Max Polack, constitute the board of directors. Hauschild and Poppe have returned to Germany, but the latter will return soon to remain permanently in charge of the American company. The company will have its principal office at 1741 Broadway, New York City, but has arranged to have the Pennsylvania Rubber Co.'s branches in Pittsburg, Chicago, Detroit, San Francisco and Los Angeles act as distributing points for Polack tires in their respective districts. The Polack tires are said to be used by all of the London bus companies and to be standard equipment on a great proportion of the high grade commercial vehicles made in England and on the Continent.

### Connecticut Withdraws from Union.

Discontinuance of the sales arrangement existing between the United Manufacturers and the Connecticut Telephone & Electric Co., of Meriden, Conn., is announced by the two companies. The Connecticut Shock Absorber Co., of Meriden, a subsidiary of the Connecticut Telephone & Electric Co., also is involved in the discontinuance, which goes into effect on the first of October. After that date the Connecticut companies will handle their sales direct from Meriden, but all matters relating to purchases up to that time will be handled by the United Manufacturers at New York.

### Rider-Lewis in Receiver's Hands.

Receivership proceedings have been instituted against the Rider-Lewis Motor Car Co., of Anderson, Ind., resulting in the appointment of Thomas J. Delahunt as receiver, under $50,000 bond. Superior Judge Austill has directed the receiver to take an inventory and appraisement of the plant and to place $82,000 insurance on the property. The operation of the factory has been suspended pending the court's hearing of the wishes of the creditors. The officers of the company state that there is $90,000 of unfinished material in the factory.

### Pacific Coast Maker Decides to Quit.

The Auto Vehicle Co., of Los Angeles, one of the very few concerns which undertook to build automobiles on the Pacific coast, is winding up its affairs and will quit the business. It already has sold its parts and patterns to the W. J. Burt Motor Co. and the Sam Johnson Auto Co., of Los Angeles, and so soon as the few finished cars that remain on hand are disposed of it will "shut up shop." The Auto Vehicle Co. manufactured the Tourist car, and starting in a small way eight years ago attained respectable proportions.

### Two Big Supply Houses Merged.

The Weinstock-Nichols Co., of San Francisco, Cal., has absorbed the Moore Motor Supply Co. of the same city. The Moore company was one of the oldest, if not the oldest, automobile supply houses on the Pacific coast.

## SEVENTEEN MORE SELDEN SUITS

**They Awaken Importing Trade from Fancied Security—And it is Promised that Other Suits Will Follow.**

Coupled with the announcement that "other suits will follow," indicating that its round-up is not complete, the Association of Licensed Automobile Manufacturers made known on Monday last that actions alleging infringement of the Selden patent had been brought against sixteen importers and one American manufacturer who is about to engage in the reproduction of a foreign model in this country, i. e., the Fiat Automobile Co., of Poughkeepsie, N. Y. That such proceedings would be instituted was stated by the Motor World last week.

The seventeen defendants on whom service was made and the cars they handle, are as follows: S. P. O. Automobile Co. (S. P. O.); Itala Import Co. (Itala); Albert C. Otto (Saurer trucks); Fiat Automobile Co. (Fiat); C. G. V. Import Co. (C. G. V.); Delahaye Import Co. (Delahaye); Zust Motor Co. (Zust); Benz Auto Import Co (Benz); Hotchkiss Import Co. (Hotchkiss); Daimler Import Co. (Mercedes); Henry Ducasse & Co. (Darracq); Renault-Freres Selling Branch (Renault); Saurer Motor Trucks (Saurer trucks); Albert C. Travis (Mercedes); Healey & Company (Mercedes); Fiat Company of Poughkeepsie (American Fiat); A. T. Demarest & Co. (English Daimler); J. M. Quinby & Co., Newark, N. J. (Isotta).

All of the suits save that against Quinby & Co. were filed in the United States Circuit Court for the Southern District of New York; that against Quinby & Co. was lodged in the United States Court for the New Jersey District.

In each case an injunction and damages are asked for. The answers are returnable October 3d next.

Several of the defendants at one time operated under the limited license granted importers by the Association of Licensed

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Automobile Manufacturers, but for one reason or another they permitted the arrangement to lapse and the whole importers colony appears to have been lulled to a sense of false security or immunity, as while the A. L. A. M. was active in prosecuting American manufacturers, the importers were left undisturbed. The fact, however, that Panhard & Levassor were coupled with the Ford Motor Co. in Judge Hough's recent decision sustaining the Selden patent and pending an appeal were required to file a bond of $16,000, indicates that the other importers may be required to do likewise.

**Wisconsin Dealers Forming Association.**

Out in Wisconsin, where a similar movement originated several years ago, the retail dealers are making another effort to form an association to promote their mutual interests. The first step in that direction was taken at a meeting held in Milwaukee on Thursday last when a temporary organization was formed with Rudolf Hokanson, of Madison, as chairman, and M. C. Moore, Milwaukee, as secretary. There was also appointed a committee on permanent organization consisting of F. J. Edwards, chairman, Milwaukee; L. F. Schoelkopf, Madison; S. C. Foster, Beloit; E. J. Foster, Waukesha; George Rall, Galesville; A. Zwiebel, Jr., Burlington; C. P. Barker, Chippewa Falls; George W. Davis, Grand Rapids; P. B. Haber, Fond du Lac; Otto Sherer, Palmyra; Arthur Gardner, Kenosha; C. H. Holway, La Crosse; Frank Gordon, Darlington; O. R. Hughes, Marshfield, J. C. Crain, Oshkosh; Thomas Jacobs, Wausau; W. H. St. John, Green Bay, and M. Hall, Manitowoc. The committee will make a canvass of the state to enlist their fellow-dealers and secure their attendance at the next meeting.

**Why Smith Will Not Leave Kansas.**

The Smith Automobile Co., of Topeka, Kan., will neither move to Grand Rapids, Mich., nor establish a branch factory in the latter city for the present, as the effort to interest Grand Rapids investors has not met with complete success. O. H. L. Wernicke and E. D. Conger, of Grand Rapids, two of the principal stockholders in the concern, express the ambition, however, for an ultimate transplantation of the factory making the Great Smith car, which has added to the glory of Kansas.

**E-M-F. to Purchase More Real Estate.**

The E-M-F Co., of Detroit, Mich., has arranged for the purchase of the property at the northwest corner of Jefferson avenue west and Campau street and adjoining the E-M-F plant at the northeast corner of Jefferson avenue west and Clark avenue. The land belongs to the Beaubien Ice & Coal Co., and its purchase will permit of a doubling of the ground area of the E-M-F factory which it immediately adjoins.

## OVERLAND PUTS RUMORS TO ROUT

**Denounces Stories of Overstock and Sales to Mail Order Houses—Clear Statement of Its Condition.**

Reports that have been circulating, particularly in the South and West, to the effect that the Willys-Overland Co. was overstocked and had been supplying cars to Sears, Roebuck & Co., the Chicago mail order house, have somewhat disturbed the serenity of even George W. Bennett, the Overland sales manager. In private converse Bennett employs the short and ugly word to characterize the report, but in an official statement he deals with it in this language:

"There is absolutely no truth in it, nor in any other of the rumors. We have sold no Overlands, except through our regular dealers in the regular channels, and at the regular discounts. We have no overstock of complete machines, and on the night of August 31st were 241 orders behind in our shipping department.

"We have joined no combinations, have participated in no merger, nor do we intend doing so. The Willys-Overland Co. will be, as it has always been, an independent organization, 98 per cent. of the capital stock being owned by its president. We own five factories, full of machinery, free and clear from all incumbrances. We are mechanically equipped to make 25,000 Overland automobiles in the season ending July 31, 1911, and financially able to purchase all the material necessary for them. We are in possession of orders, with deposits for almost that quantity of machines, and are daily receiving more orders for immediate shipment than we can possibly fill."

**Johns-Manville Opens More Branches.**

Two more branch offices, in addition to the 34 branches previously established, have been opened by the H. W. Johns-Manville Co., of New York City, which makes Non-Burn brake lining and a wide line of asbestos products. The cities which have been placed on the list are Atlanta, Ga., and Rochester, N. Y., the branch in Atlanta being located in the Empire building and in charge of W. F. Johns, while the Rochester branch, at 725 Chamber of Commerce, is in charge of H. P. Domine, formerly with the company's Buffalo branch.

**Twombly Sells His French Rights.**

The Twombly Power Co., of New York City, has sold the French patent rights for its quick removable power plant system for automobiles, to Bernard Maimon, the proprietor of Le Matin, the leading Paris morning newspaper. Maimon also controls the largest electric vehicle factory in France, but has been looking for a gasolene car suitable for taximeter cab and commercial vehicle purposes and for which he might obtain the manufacturing rights. W. Irving Twombly, the inventor of the system, sails on October 1st to deliver the necessary patents, specifications and working drawings.

**Glass Discs Must Pay 45 Per Cent. Duty.**

Glass discs chiefly used for the manufacture of reflectors for automobile lamps are not entitled to free entry, whether they are rough, cut or wrought, according to a decision of the Board of United States General Appraisers at New York. The board declares them to be dutiable at 45 per cent. ad valorem, in a decision sustaining the collector of customs.

**Canada, Too, Has Cause for Expansion.**

The Canada Cycle & Motor Co., of Toronto, Ont., is building a $100,000 addition to its automobile plant at West Toronto, in the form of a four story building, 120x90 feet. The enlargement will permit an increase of the company's output of Russell-Knight cars embodying the Knight sliding sleeve valve engine.

**Detroit Dealers to Repeat Their Show.**

Detroit again is to have its winter show, given by the Detroit Automobile Dealers' Association, and the Wayne Pavilion once more has been selected for the purpose. The show is scheduled for January 15 to 21, and the show manager is to be chosen at the next meeting of the association's directors.

**Demotcar's Liabilities Aggregate $173,000.**

Liabilities aggregating $173,608, of which $124,091 is in unsecured claims and $1,124 in unpaid wages, are listed in the report of the receiver of the Demotcar Co., of Detroit, Mich., against which a petition in bankruptcy was filed recently. The assets of the concern have not yet been valued.

**More Tops Coming from Marshalltown.**

The Marshall Auto Top Co. has been formed in Marshalltown, Iowa, for the manufacture of the goods indicated by its title, and has located at 113-115 East State street. Austin Appleby, Charles Martin and S. J. Tinker are behind the venture.

**Three Additions to the M. A. M. Roll.**

The Edison Storage Battery Co., East Orange, N. J.; the McCue Co., Hartford, Conn., and the Pfanstiehl Electrical Laboratory, North Chicago, Ill., have been elected to membership in the Motor and Accessories Manufacturers, Inc.

**Osborn to Handle Schurmeier Sales.**

Meritt I. Osborn has been appointed manager of the Schurmeier Motor Car Co., St. Paul, Minn., which recently embarked in the manufacture of motor trucks.

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## BUSSES ARE COMMERCIAL CARS

**New York's Supreme Court so Rules Despite the Fact that They Carry Passengers—State Files an Appeal.**

Although Secretary of State Koenig, in the words of Richard W. Meade, president of the Fifth Avenue Coach Co. and the New York Transportation Co., was supposed to be "heartily in favor of the coach company's effort to obtain a judicial decision, which once and for all would define exactly what a commercial vehicle is and what it is not"—as told in the Motor World of August 4th, the decision so greatly desired does not seem to have suited Mr. Koenig, for he has caused an appeal to be filed.

As will be remembered, the Fifth Avenue Coach Co. registered one of its passenger omnibuses under the commercial vehicle law, paying a registration fee of $5; and when this car was protested, applied for a writ of mandamus, requiring Secretary Koenig to show cause why this particular vehicle should not be permitted to be operated as a commercial vehicle. This writ was not only granted by Justice Howard, but the Secretary of State was directed by the court to accept the company's application for registration of its 40 horsepower omnibuses under the low rate prescribed by the Callan law for commercial vehicles. The excess of registration money paid for the 84 other buses of the company, which the secretary's office has held pending the judicial decision, has been ordered returned to the company. At the request of Secretary Koenig, however, Attorney-General O'Malley has filed an appeal to the Appellate Division of the Supreme Court, Third Department, and pending the outcome of this appeal matters between the Fifth Avenue Coach Co. and Secretary's Koenig's office will remain in statu quo.

**New Company Takes Kirkham Motors.**

The Kirkham Motor Co., Bath, N. Y., which several months ago was acquired by interests representing the B. C. K. Motor Car Co. of York, Pa., is to be taken over by a new corporation, the Bath Motor Mfg. Co., which has been organized for the purpose and which will continue the manufacture of gas engines. The new concern, which is capitalized at $300,000, has been incorporated under the laws of New Jersey and its control will rest with the B. C. K. people, its officers being: President, S. E. Baily, of the York Carriage Co., York, Pa.; vice-president, James A. Kline, of the B. C. K. Motor Car Co., York, Pa.; secretary, J. C. Schuette, of S. E. Baily & Co., Lancaster, Pa.; treasurer, George W. Ryan, of the B. C. K. Motor Car Co., York. These officers and P. E. Wufflein of Trenton, N. J., are the directors of the concern.

**Detroiter to Build Cars in California.**

"Detroit influence" has made itself felt in San Diego, Cal., where C. W. Taylor, a former Detroiter, has been instrumental in organizing the Southwestern Motor Car Co., which proposes to build a car of "entirely new design" which will be styled the "Southwest Special." W. H. Hunt, of the Hunt Automobile Co., is interested with Taylor in the venture, for which quarters have been leased in San Diego at Eighth and F streets. The plans include the establishment of several branch stores, one of them at El Paso, Tex., with a view to bidding for Mexican trade.

**Hudson Brings Out a Larger Model.**

In addition to its well known 20 horsepower, $1,000 car, the Hudson Motor Car Co., Detroit, Mich., will produce a 33 horsepower model which with touring body will list at $1,250 and with torpedo body at $1,350. The new comer has 114-inch wheel base, 34 inch wheels with quick detachable rims and an Alumaloid metal body.

**Wallerich Goes Back to Overland Staff.**

Carl Wallerich, formerly connected with the Overland company at Indianapolis, and later sales manager for the Haynes Automobile Co., of Kokomo, Ind., has again joined the Overland selling staff. He has been appointed special agent with headquarters at Toledo, Ohio.

**Iowa Top Factory Moving to Indiana.**

The Gates-Osborne Mfg. Co., of Marshalltown, Ia., making automobile tops, is to be moved to Indianapolis, Ind., by Frank E. Gates, who recently bought out his partner, L. M. Osborn. It will occupy quarters on Senate avenue and will employ 150 operatives.

**To Manufacture Carburetters in Rome.**

The Stevens Mfg. Co., which recently was organized in Rome, N. Y., with $50,000 capital, has leased the top floor of Noonan's Garage in that city and is equipping it for the manufacture of carburetters and other automobile accessories.

**Hudson Now Million Dollar Company.**

The Hudson Motor Car Co., of Detroit, Mich., has increased its capital stock from $100,000 to $1,000,000. The increase is to result in a stock dividend to the present holders of the shares, although $100,000 of the new issue will remain in the treasury.

**E-M-F Bent on Export Expansion.**

W. H. Lalley, foreign representative of the E-M-F Co., has departed for "the other side," intent on widening the company's export field. He will visit both Great Britain and the Continent.

## BUICK HAS NEW GENERAL MANAGER

**Charles W. Nash Takes Entire Control of Its Affairs—"Wizard" Durant Will "Build Up" General Motors.**

Apparently the terms dictated by the bankers who made the recent loan of $2,500,000 to the Buick Motor Co. and thus tided over its difficulties reached even further than first reports indicated. In addition to obtaining 24 per cent. for the use of the money and insisting that retrenchment shall prevail, it is said that they required that W. C. Durant, the one-time "wizard" and near-Napoleon of the industry, shall have very much less to do with Buick affairs. At any rate it is announced that Charles W. Nash has assumed the general management of the Buick company and will have full control of the plant. Mr Nash was vice-president and general superintendent of the Durant-Dort Carriage Co., from which Durant originally came.

Mr. Durant, according to the same announcement, "will remain general manager of the General Motors Co.—the holding company—and continue to build it up with all of the energy for which he is noted," which means that he will have more time to boost the price of its shares, a task which led him into hot water and which since the troubles of the Buick company became public property has been rendered even more difficult. The merchandize creditors of the company held another meeting on Thursday last, at which, it is said, those who opposed the acceptance of the Series B notes were pacified and satisfactory arrangements made, which, however, will not be wholly consummated until the signatures of two men are obtained.

**Texas Manufacturer Forced to the Wall.**

Involuntary bankruptcy proceedings have been brought against the Southern Motor Car Co., of Houston, Tex., by three of its creditors in Dallas. The company has been making assembled cars and has appealed for Southern patronage on the ground of being one of the pioneer automobile manufacturing concerns in the South. The petitioners' claims aggregate $4,600.

**Willys-Overland to Produce $775 Model.**

The Willys-Overland Co., Toledo, Ohio, is adding a $775 car to its line. It will employ a four cylinder, 20 horsepower engine and is termed "a wonder" by those who have been privileged to see it.

**Lavigne Building Three-Story Addition.**

The Lavigne Manufacturing Co., of Detroit, Mich., is building an addition to its factory. The addition is 100 feet square and three stories high.

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## THE WEEK'S INCORPORATIONS.

Detroit, Mich.—Detroit Garage Co., under Michigan laws, with $75,000 capital.

Paterson, N. J.—Center Garage Co., under New Jersey laws, with $25,000 capital.

Cleveland, Ohio—Auto Supply Co., under Ohio laws, with $10,000 capital. Corporators—B. L. Wilson and others.

Lansing, Mich.—Alden Sampson Mfg. Co., a Massachusetts corporation with $300,000 capital; to do business in Michigan.

Uniontown, Pa.—Automobile Rental Co., under Pennsylvania laws, with $5,000 capital. Corporators—C. W. Johnson and others.

Des Moines, Ia.—Moyer Automobile Co., under Iowa laws, with $5,000 capital; to operate a garage. Corporators—W. E. Moyer, E. B. Moyer.

Cleveland, Ohio—Auto Supply Mfg. Co., under Ohio laws, with $10,000 capital. Corporators—F. T., C. B., B. L. Wilson, O. P. McStrath, W. McStrath.

Vicksburg, Warren Co., Miss.—Hill City Garage Co., under Mississippi laws, with $10,000 capital. Corporators—John Hudge, O. F. Parsons and others.

Boston, Mass.—Boston Auto Coach Co., under Massachusetts laws, with $50,000 capital; to deal in automobiles. Corporators—T. K. Ruth and others.

Boston, Mass.—National Motor Car Co., under Massachusetts laws, with $25,000 capital; to deal in automobiles. Corporators—F. A. Wyman and others.

Kansas City, Mo.—Case Auto Supply Co., under Missouri laws, with $5,000 capital. Corporators—R. H. Alexander, Belle S. Alexander, Christine Alexander.

Peapack, N. J.—Somerset Garage Co., under New Jersey lays, with $25,000 capital; to deal in automobiles. Corporators—W. C. Horton, J. Auble, W. Simpson.

Chicago, Ill.—Furner Motor Car Co., under Illinois laws, with $10,000 capital; to manufacture automobiles. Corporators—Edward Furner, A. W. Eschert, W. J. Bell.

Castleton-on-Hudson, N. Y.—Belmont Motor Vehicle Co., under New York laws, with $25,000 capital. Corporators—H. H. G. Ingalls, Arthur Cheney, O. D. Woodford.

Newark, N. J.—A. Hoch Rubber Co., under New Jersey laws, with $100,000 capital; to manufacture rubber goods. Corporators—A. Hoch, C. M. Adair, E. S. Robinson.

Newark, N. J.—Auto Delivery Truck Co., under New Jersey laws, with $50,000 capital; to do general garage and repair business. Corporators—N. Davidson, I. Rosenbaum and others.

St. Louis, Mo.—Frank Goeke Motor Car Co., under Missouri laws, with $5,000 capital; to deal in automobiles. Corporators—Frank Goeke, J. L. Gutweiler, Katie Gutweiler.

Portland, Me.—Polack Type Co., under Maine laws, with $500,000 capital; to manufacture and deal in automobile tires. Corporators—I. S. Kearney, Augusta, Me., and others.

Frederick, Md.—Frederick Automobile Co., under Maryland laws, with $50,000 capital; to deal in automobiles and accessories. Corporators—Dr. F. B. Smith and others.

Chicago, Ill.—Saurer Motor Trucks, a New Jersey corporation, admitted to do business in Illinois, with a capital of $1,000,000. Chicago incorporator—W. M. Thompson.

Paterson, N. J.—Chester Garage Co., under New Jersey laws, with $25,000 capital; to deal in motor vehicles. Corporators—J. Martin, W. A. Jacobson, M. Price, all of Paterson.

Chicago, Ill.—Moon Motor Car Co., under Illinois laws, with $5,000 capital, to deal in automobiles and accessories. Corporators—C. M. Garrett, B. W. Rosenstone, Harry J. Meyerson.

Mount Vernon, N. Y.—Prospect Auto & Garage Co., under New York laws, with $2,000 capital; to conduct a garage. Corporators—George A. Conlon, Charles Davis, Eugene Levy.

New York City, N. Y.—C. R. Teaboldt & Co., under New York laws, with $50,000 capital; to manufacture and deal in vehicles. Corporators—Emerson Brooks, C. R. Teaboldt, Geo. F. Aitken.

Dayton, O.—Dayton Electromobile Co., under Ohio laws, with $250,000 capital; to manufacture electric vehicles. Corporators—John L. Baker, H. B. Brentlinger, George L. Baker, Charles W. Dale.

Toledo, Ohio—Toledo Taxicab Co., under Ohio laws, with $10,000 capital; to operate taxicabs and a garage. Corporators—C. C. Waitmore, A. H. Merrill, Geo. C. Craig, A. H. Campbell, K. E. Vahey.

Yonkers, N. Y.—Lowa's Garage, under New York laws, with $5,000 capital; to deal in automobiles, motorcycles and accessories. Corporators—Wm. Lowa, Arthur Giessner, Chas. W. Lowa, all of Yonkers, N. Y.

New York City, N. Y.—Benz Automobile Co., under New York laws, with $100,000 capital; to deal in automobiles and accessories. Corporators—D. Weingarten, O. Weingarten, J. Froelich, all of New York City.

Lewiston, Me.—Main Supply & Garage Co., under Maine laws, with $200,000 capital; to manufacture and deal in agricultural implements, vehicles, automobiles etc. Corporators—A. Cailler, H. P. Bevhard.

Trenton, N. J.—Bath Motor Mfg. Co., under New Jersey laws, with $300,000 capital; to manufacture gasolene motors. Corporators—Peter E. Wurfflein, Theodore G. Kitchin, Leroy W. Shelton, all of Trenton, N. J.

Chicago, Ill.—Edison-Beach Car Co., under Illinois laws, with $5,000 capital; to manufacture electric batteries and other electric appliances. Corporators—W. W. Wheatley, L. W. Wheatley, William S. Gore.

Setauket, N. Y.—Overland Sales Co., under New York laws, with $100,000 capital; to deal in automobiles and other vehicles. Corporators—C. T. Silver, Eugene Widman, John A. Schaefer, James K. Alexander.

St. Louis, Mo.—Southern Auto & Machinery Co., under Missouri laws, with $7,500 capital, fully paid in; to manufacture and deal in automobiles. Corporators—Emil Hitz, Herman Miller, Wm. Wehrenbrecht.

Dover, Del.—Walk Auto Tire Co., under Delaware laws, with $125,000 capital; to manufacture and deal in automobile tires. Corporators—F. R. Hansell, Philadelphia, G. H. B. Martin and S. C. Seymour, Camden, N. J.

Cambridge, Mass.—American Storage Battery Co., under Massachusetts laws, with $50,000 capital; to manufacture and deal in storage batteries. Corporators—F. F. Sullivan, Auburndale; C. M. Ludden, Waltham.

Brooklyn, N. Y.—Mac Auto Co., under New York laws, with $10,000 capital; to conduct a general garage business. Corporators—Edward A. McShane, Mary A. McShane, of New York City, and Thomas McCauley, of Brooklyn.

Columbus, Ohio—Columbus Taxicab & Auto Livery Co., under Ohio laws, with $10,000 capital; to operate a garage and taxicab service. Corporators—Russell Floyd, R. H. Kissinger, R. P. Wallace, M. R. Edwards, Roston Medbery.

Richmond, Va.—Standard Auto Equipment Co., under Virginia laws, with maximum capital of $10,000, minimum $3,000; to conduct a general automobile and carriage service. Corporators—B. C. Pattee, George A. Perry, C. Ridgeway Moore.

### Increases of Capital.

Lansing, Mich.—New Way Motor Co. increases capital from $100,000 to $350,000.

Hartford, Conn.—R. D. & C. O. Britton Co. increases capital from $40,000 to $50,000.

Connersville, Ind.—Lexington Motor Car Co. increases capital from $50,000 to $100,000.

Joliet, Ill.—Vanguard Mfg. Co., manufacturers of wind shields, increases capital from $25,000 to $50,000.

Chicago, Ill.—Premier Motor Car Co. changes name to Fort Dearborn Motor Co. and increases capital from $12,000 to $35,000.

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## IN THE RETAIL WORLD.

The Texarkana Garage has commenced business in Texarakana, Tex. Clarence Grimes is the manager.

W. S. Grady has opened salesrooms at the corner of Bridge and Paige streets, Lowell, Mass. He handles the Regal car.

J. A. Zeman, a garage owner of Davenport, Ia., has established a branch garage in Rock Island, Ill. The shop is located on Second avenue.

A branch of the Studebaker Bros. Co., of California, has been opened in Los Angeles, at 1242-44 South Flower street. L. J. Ollier is in charge.

The Alquest Co. is the style of a new concern which has opened a garage and repair shop in Phoenix, Ariz. The shop is located on South Mill avenue.

Frank E. Moore is building a garage on South Main street, Los Angeles, Cal. The structure will be 46 x 100 feet, of pressed brick, with full plate glass front.

The Archey-Atkins Co., of Indianapolis, Ind., has opened new quarters at 425 North Meridian street. It is handling Pierce-Arrow gasolene cars, and Woods electrics.

At a cost of $200,000 a four-story garage is being built at 1401-1409 Locust street, Philadelphia, Pa. George C. Boldt, proprietor of the Bellevue-Stratford hotel, is the owner.

J. M. Rauch, formerly of the Auto Sales Co., Cleveland, Ohio, has organized the Hupp Motor Sales Co., with headquarters at 1206 Huron road. As the name indicates, Hupmobiles will be featured.

Under the style the South Florida Motor Car Co., C. F. Irsch has opened a garage and salesroom at 312-314 Washington street, Tampa, Fla. He has the agencies for the Jackson and Empire cars.

Stoddard-Dayton cars hereafter will be represented in Trenton, N. J., by Norman F. Druck, formerly proprietor of the Trenton Auto Garage. He has opened salesrooms at 237 North Broad street.

The Engineer Equipment Co. is the style of a new firm which has opened a garage in East Wheeling, W. Va. The building is 120 x 60 feet, one story high, and stands at the corner of 18th and Eoff streets.

The Victoria Motor Car Co. is the style of a concern which just has opened up at Victoria, Tex. T. L. Stern and L. W. Daniel are the responsible men. They will sell Oldsmobiles and Oakland cars.

Charles L. Rodgers, formerly with the Inter-State agency in Brattleboro, Vt., has opened a garage under his own name on Wall street. He will confine himself strictly to renting, storing and repair work.

Under the presidency of M. J. Caton, a new automobile company has been formed in Pittsburg, Pa., to handle Owen and Haynes cars. It is styled the National Automobile Co., and is capitalized at $100,000.

F. R. Bausch, of Allentown, Pa., has purchased the interest of the Brewster Bros. in the Lehigh Auto Tire Co., 711 Linden street, and will conduct the business in his own name. Brewster Bros. have established a garage and repair shop in Lansford, Pa.

The Essex Automobile Co., of Lynn, Mass., has entered Boston and established a branch in the latter city at 174 Columbus avenue. H. M. Doane is in charge of the Boston office, where he will exploit Warren-Detroit cars.

R. Meyer, John Day, Frank Goold and Fred Cook, of Lancaster, Wis., have formed a partnership under the title the Goold Auto Co., with headquarters in their home town. They will represent Oakland, White and Buick cars.

Stephen D. Peirce, of New Bedford, Mass., has opened a salesroom in his home town, where he will display Pope-Hartford, Peerless and Hudson cars. He formerly was salesman for the Waite Auto Supply Co., Providence, R. I.

On the petition of Jaris W. Matthews and Nelson F. Hunt, of Bridgeport, Conn., a receiver has been appointed to wind up the affairs of the Matthews Garage Co., of 157 John street. The petitioners hold ten shares in the company.

The Speedwell Motor Car Co. has been organized in Portland, Ore., by C. A. Nation and Dr. C. B. Brown. The Speedwell car formerly was handled in Portland by the Thompson Motor Car Co., but the latter has relinquished the agency.

B. C. Kennedy has obtained the representation for the Lexington car in San Francisco, Cal., and formed a company under the style the Lexington Automobile Agency. Temporary headquarters have been opened at Van Ness and Sutter avenues.

Anthony M. Haller, a machinist connected with the Wheeling (W. Va.) Mould & Foundry Co., has opened a machine and repair shop at the corner of North Broadway and Zane avenue. He expects to do a general garage business and to deal in used cars.

An involuntary petition in bankruptcy has been filed against the Rock City Auto Co., of Nashville, Tenn. The Excelsior Supply Co., of Chicago, and the Star Rubber Co., of Akron, Ohio, are the chief creditors, with claims of $228 and $460 respectively.

Work is well under way at 915-921 Boylston street, Back Bay, Boston, Mass., where the new garage and salesrooms of the Thomas Motor Car Co. will be located. The structure, when finished, will be 112 x 50 feet, four stories high, and will cost about $75,000.

F. M. Hubbell, Son & Co., of Des Moines, Ia., have purchased ground at the corner of 10th and Walnut streets, and will erect thereon a monster automobile building. Four companies already have arranged for quarters in the building, which will cover the entire block.

The Deeds & Hirsig Mfg. Co., of Nashville, Tenn., has purchased the entire business of the Howard-Cregor Co., former agents for the Chalmers car, to which Hudson and Hupmobiles will be added. R. E. Howard will remain as manager of the new concern.

Edward Knight and William Eagen, formerly connected with the Central Auto Garage, Pittsfield, Mass., have severed their relations with this company and opened a garage of their own on Center street in that city. They will do business under the firm name of Knight & Eagen.

A new garage is under course of construction in Beloit, Wis., near the Hotel Hilton, in which James Menhall, the owner, will display the Hudson line. Associated with him in the venture will be Harry Vale, formerly manager of the Vale Garage. The latter has been sold to Samuel C. Foster.

F. J. Long, L. Carter and Charles Henderson are the incorporators of a new concern, the Henderson Motor Co., of Atlanta, Ga. They will act as distributors for the Westcott and Cole line of cars in Virginia, North and South Carolina, Georgia, Florida and Alabama. F. J. Long was president of the Olds-Oakland Co.

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### Recent Losses by Fire.

Akron, Ohio—Union Garage Co., totally destroyed. Loss, $4,500.

West, Texas—E. B. Reed; garage and two automobiles. Loss, $7,000.

Chicago, Ill.—Majestic Garage, 5035 Cottage Grove avenue; loss, $20,000.

Sea Cliff, N. Y.—C. Berner; automobile destroyed in garage. Loss, $7,000.

Sacramento, Cal.—Ralph T. Jones, suburb St John; machine shop, garage, etc. Loss, $5,000.

Philadelphia, Pa.—William Scargle & Son, 430 Rising Sun Lane; one-story garage. Loss, $4,500.

Montclair, N. J.—Manning & Mullins, 98 Grove street; garage damaged, three automobiles burned. Loss, $10,300.

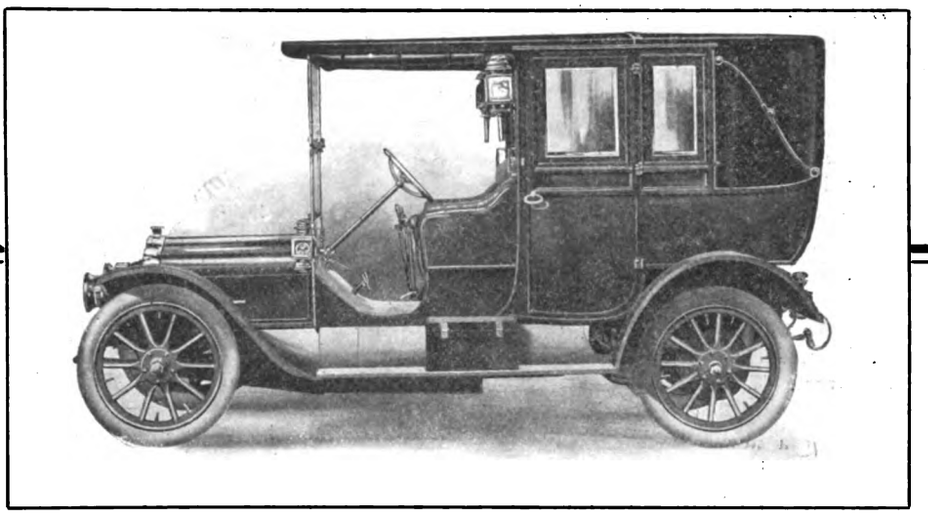
Rochester, N. Y.—George B. Scrymgeour, 309 Kenwood avenue; garage and contents destroyed. Loss, $3,500, partly insured.

Boston, Mass.—Park Square Motor Mart, Tennyson street; contents of garage burned; building damaged. Loss, $2,000.

Albion, N. Y.—Ira Luther & W. D. Porter, Main street; automobile and piano salesroom. Loss to stock and fixtures, $2,000.

Cohoes, N. Y.—Thomas Kennedy & Sons, Remsen street; garage and nine automobiles totally destroyed. Loss, $32,000; partly insured.

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## Mr. O'Malley and His Decision.

It is not often that we are obliged to disagree with the learned counselor of the American Automobile Association, but we do not share his view that it was unfair to accept Attorney-General O'Malley's explanation of his opinion respecting reciprocity as a reversal of himself.

The Secretary of State himself clearly was of the mind that the term "like exemption and privileges" in the New York law means what it says, for the point was raised when he asked the Attorney-General whether it empowered him to issue limited licenses to non-residents of states granting exemption for limited periods only. Mr. O'Malley replied in the negative and added that so much of the New York law as relates to registration of vehicles "shall not apply to such vehicles as are owned by non-residents who have complied with the law" of their own states and who conspicuously display the registration numbers of their states.

If the Attorney-General had stopped at that point there would have been no cause for misinterpretation or for Mr. Terry's defense of him. But Mr. O'Malley took pains to add that the words "like exemption and privileges" "refer directly to the exemption from registration," and that "it is only granted to residents of other states and governments which grant the same to our residents." The alleged misinterpretation is ample proof that very many minds comprehended that "the same" meant "like exemption" and that exemption from registration for one week or two bears no likeness to the unlimited exemption granted by New York state. The belief that the O'Malley opinion implied that New York did not propose to give one dollar's worth of reciprocity in exchange for five cents worth, to use a homely simile, was, therefore, by no means unjustified. Mr. Terry to the contrary notwithstanding, and the explanation or diagram of his opinion, which Mr. O'Malley subsequently issued, was very necessary, indeed.

Although they will not quibble over the attitude and generous exchange given by New York, there are those who regret that Mr. O'Malley did not mean what he was supposed to have meant and which seemed to be a first and effective step toward breaking down the miserable and unrepublican practice of restricting freedom of travel between the states of one nation.

## Possibilities of the Taxicab Chassis.

It now has come to be considered as axiomatic that such discrepancies exist between the requirements of vehicles intended for purely business purposes and those designed for pleasure use that it is unsafe to utilize the specifications of the lighter machines even for the lightest of trucks. Indeed, the only instance in which it is commonly recognized that the demands of goods and passenger hauling vehicles are practically identical is in the case of the omnibus or sightseeing car. Such being the case it is somewhat surprising that manufacturers have not been more prompt to see in the typical taxicab chassis the very elements that are needed for city and suburban delivery work.

The average public service cab is one of the best and most suitable types of motor vehicle yet produced for a specific purpose, and one of the most appropriate to the conditions under which it is made to serve. In strength and stability, low center of gravity and wide steering lock, compactness and simplicity of control, its practical efficiency is high as compared with that of other types of motor vehicle.

For all practical purposes these are just the requirements of the machine intended for delivery service. It is true that in most cases light and bulky loads are carried, that the market for vehicles of this sort is in such a state that it is difficult to get anything better than a very low price at retail and that operating conditions are very different from those under which the average taxicab is worked, particularly with reference to the lack of expert inspection and maintenance on a wholesale plan. At the same time, it would appear that these very circumstances have led astray more than one ambitious manufacturer who has invaded the delivery field. In endeavoring to meet the market idea in the matter of cost, the builder has, perhaps, restricted himself too closely and left insufficient leeway to develop just the sort of vehicle he would require for himself were he in the operator's position.

To advance for delivery service a cab chassis, unchanged save in the matter of body, naturally would involve considerable expense in educating the market. At the same time the results should be exceedingly satisfactory because of the decreased maintenance costs incident to the operation of high grade vehicles. Incidentally, the manufacturer of a chassis produced for the double purpose of cab and delivery service would reap the benefit of a considerably increased output, which should go a long way toward compensating for the high selling cost encountered in distributing the delivery machines.

## Closed Fronts Designed or Extemporized.

That the great and growing industry that takes its livelihood from the refitting of used cars never lacks occupation, a perusal of its advertising or a glance into its well-filled shops serves to show. But that it never before has had so great an opportunity thrust upon it as at the present time and perhaps never again will have, develops upon a moment's consideration of the present trend in body construction. The simple lines of the new closed front bodies which are becoming so popular tempt the owner of a car that has seen considerable service either to buy a new one or to have the old machine reconstructed. And never were the necessary changes more simply or

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less expensively made in bringing about the desired effect.

Already the service departments of the better established branches and agencies are busy building new bodies and rebuilding old ones to conform to the new style, while it is safe to say that the establishments that thrive by the rejuvenation of second-hand machines are not far behind in taking up the plan. The thing is done so simply and inexpensively, and the change in the appearance of the standard touring body when the front doors are added is so radical, that there can be small doubt as to the probability that such reconstructed bodies will become exceedingly numerous within a relatively short time.

Such reflection develops a point for the automobile manufacturer who himself is contemplating the building of or already is marketing a closed front type of car. Because of the very simplicity of the thing, there is a temptation for him to retain his old style body, merely adding to it the new doors and modifying the dash to correspond. But as such modification is perfectly obvious, there is some chance that bodies produced by this simple process may lack the distinctiveness which ordinarily is sought in new models. On this account not a few manufacturers deem it advisable to give to the closed front types a touch or two of individuality, even if only by way of an added moulding or two or a distinctive bit of paneling.

### The Return of a Boomerang.

It is quite evident that the Republican state convention of New Jersey, which selected its gubernatorial candidate on Tuesday last was made up of an unappreciative lot. To think that of the more than 1,000 delegates but 53 of them realized the sterling worth of the Hon. Joseph S. Frelinghuysen—"Joe," the aspiring one, who desired so much to sit in the governor's chair when he was not seated in his insurance office in New York, and who once in a while even slept under the skies of New Jersey—"Joe," who gave New Jersey such a "model" automobile law that the state became the "highwayman" of the nation and forced other citizens of the republic to "stand and deliver" before they dared enter its gates—a law that caused the rest of the nation to rise in exasperation and swat all who live in New Jersey. After a statesman has done all of these things—after he has thrown such a superb boomerang he deserves the votes of more than 53 of his political bed-fellows. He should have received at least 54 of them. The Hon. Mr. Frelinghuysen therefore is entitled to highly distinguished commiseration. New York, however, secretly should be pleased that such an eminent insurance man will be able to spend as much time as ever "in its midst," and should earnestly hope that the return of his boomerang has not raised such a bump on his noble brow as permanently to disfigure it. At any rate "Joe" will not have to pack his carpetbag and run for the Jersey City ferry any oftener than was his wont, and that's something that even a statesman should be thankful for.

## COMING EVENTS

September 24, Narbeth, Pa.—Norristown Automobile Club's race meet.

September 24, Detroit, Mich.—Automobile races under auspices Wolverine Automobile Club.

September 26-29, St. Louis, Mo.—Third annual national good roads convention.

September 30-October 3, Minneapolis, Minn.—Automobile Club of Minneapolis third endurance run.

October 1, Springfield, Ill.—Automobile races at Illinois State Fair.

October 1, Long Island Motor Parkway, N. Y.—Motor Parkway Sweepstakes.

October 1, Peoria, Ill.—Automobile races at state fair.

October 1, Mineola, L. I.—Sixth annual Vanderbilt Cup race on Long Island Motor Parkway, under the auspices of the Motor Cups Holding Co.

October 8, Richmond, Va.—Automobile races at state fair grounds.

October 6-7, Chicago, Ill.—Chicago Automobile Club-Chicago Athletic Association inter-club run for Myers trophy.

October 6-8, Santa Anna, Cal.—Automobile meet.

October 8, Spokane, Wash.—Automobile meet at Interstate Fair.

October 8, Philadelphia, Pa.—Quaker City Motor Club's third annual 200 miles road race in Fairmount Park.

October 10-12, Amarillo, Tex.—Panhandle Fair Association's annual race meet.

October 10-15, Hot Springs, Ark.—Automobile races at Arkansas State Fair.

October 15, Mineola, L. I.—Motor Cups Holding Co., 278 miles international road race on Motor Parkway, for the Grand Prize of the Automobile Club of America.

October 14-18, Washington, D. C.—Second annual Washington "Post" tour to Richmond, Va., and return.

October 15, Chicago, Ill.—Chicago Motor Club's reliability contest.

October 15-16, Philadelphia, Pa.—Automobile Club of Philadelphia fall tour, Atlantic City and return.

October 21-22, Boston, Mass.—Boston "American" commercial vehicle contest.

October 24, Lawrence, Mass.—Automobile races.

October 27-29, Dallas, Tex.—Dallas Automobile Club's race meet.

October 28-29, New York City—Commercial vehicle test, under auspices New York American.

November 3-5, Atlanta, Ga.—Atlanta Automobile Association's fall meet on speedway.

November 5, Los Angeles, Cal.—Los Angeles-Phoenix (Ariz.) desert road race.

November 5-6, New Orleans, La.—Automobile meet.

November 10-13, San Antonio, Texas—San Antonio Automobile Club's races at International Fair grounds

November 22-26, Lake Charles, La.—Louisiana Fair Association's race meet.

November 24, Redlands, Cal.—Mile High Hill Climb Association's contest.

November 24, Santa Monica, Cal.—Southern California Automobile Dealers' Association's annual road race; 200 miles.

November 24, Savannah, Ga.—Savannah Automobile Club's road race.

December 3-18, Paris, France—French Automobile Manufacturers' Salon in Grand Palais.

December 25-26, Los Angeles, Cal.—Races at Motordrome.

January 5-21, Detroit, Mich.—Detroit Automobile Dealers' Association's annual show in Wayne Pavilion.

January 7-14, New York City—Association of Licensed Automobile Manufacturers eleventh annual show in Madison Square Garden. Pleasure cars and accessories.

January 16-21, New York City—Association of Licensed Automobile Manufacturers eleventh annual show in Madison Square Garden. Second week devoted to commercial vehicles.

January 28-February 4, Chicago, Ill.—National Association of Automobile Manufacturers' tenth annual national show in Coliseum. Pleasure cars and accessories only.

February 6-11, Chicago, Ill.—National Association of Automobile Manufacturers' tenth national show in Coliseum. Second week devoted to pleasure and commercial cars, motorcycles and accessories.

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## ALGONQUIN'S GREATER GLORY

**With a Made-to-Order Hill, Its Double-Barrelled Climb Gains New Fame—Greiner Lion of the Day.**

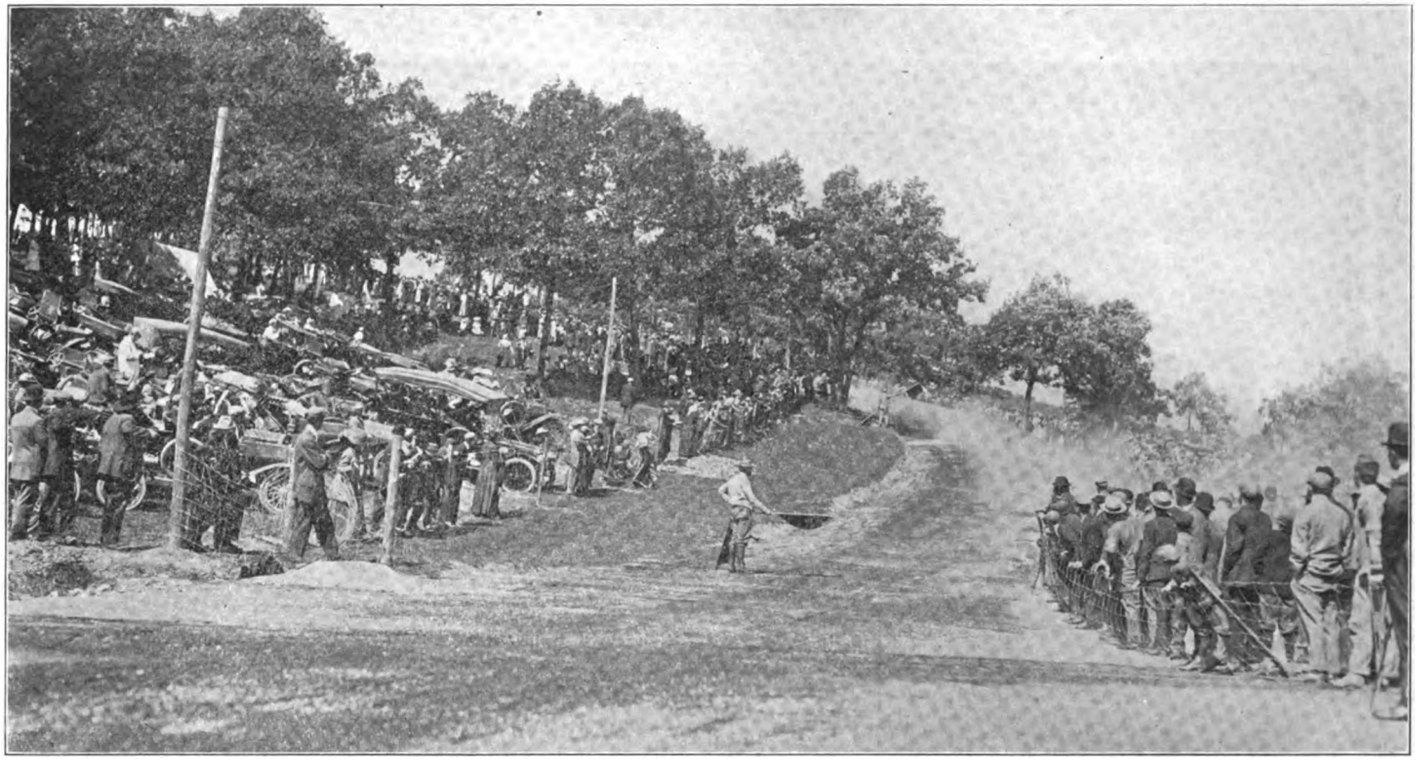
There is one day in every year when the little town of Algonquin, Ill., thanks to the hustling Chicago Motor Club, occupies the center of the stage in the western world of motoring, and Friday, the 16th inst., was that day. The occasion for this annual skyrocket rise of Algonquin to fame is the Motor Club's annual—this year it was the fifth—hill climb, and claiming further distinction in that it is a double barreled function and the only one of the sort on the motor calendar. It has had no imitators, despite the fact that it is five years old, and is the blue ribbon climb of the Middle West.

So attached have the Windy City motorists become to the pretty little agricultural community that when a clash with the authorities of a neighboring county imperiled their pet climb, they moved over bag and baggage to Algonquin, which is in another county, and did an unprecedented thing—built a hill to replace the one they were forced to abandon. In former years the club has had to stand with a leg in each county, so to speak, for Perry hill is in Dundee county and Phillips hill is in McHenry county. So when the powers that be in the former became unreasonable, the Algonquinites, who were quite friendly, quickly invited the motorists to come over to their yard altogether, and the latter wasted no time in accepting.

Under the new arrangement Phillips hill which previously was used for the afternoon climb was attacked in the morning, while in the afternoon the newly "made" hill, which has been christened Algonquin in honor of the town, was the scene of action. The morning climbs were from a standing start, while in the afternoon the getaway was a flying one. Although this arrangement was contrary to custom it was necessitated by the unusual steepness of the new hill. Phillips hill is exactly half a mile in length, and Algonquin is about the same. The latter is a particularly hard nut to crack, as it has two turns with an average grade of 12 per cent. and a maximum of 26 per cent. The turns are not sharp and are heavily banked.

Owing to the changed conditions comparison with last year's climb is unjust. However, records on Phillips fell like chaff before a cyclone, despite the fact that the start was a standing instead of flying one, while the marks which were hung up on Algonquin are almost unbelievable. A unique feature of the latter is that it is laid out on private property and cuts through the apple orchard of a friendly farmer who came to the club's aid in their hour of trouble.

Arthur Greiner, the young Chicagoan who drove so brilliantly in the Elgin carnival, took several more steps towards the pinnacle of glory by carrying off the honors of the day in a National. As the recital of last year's contest told how Greiner in a spectacular battle for premier honors fell just short of the mark and had to be content with playing second fiddle, so this details his gaining the topmost rung of the ladder of Algonquin's fame by winning the coveted Algonquin free-for-all trophy. This was not the full extent of Greiner's performance, however, for in all of his five starts he put the speedy National, which has brought him more fame than any other car he ever drove, over the line a winner each time.



GENERAL VIEW ON ALGONQUIN HILL SHOWING THE LARGE CROWD IN ATTENDANCE

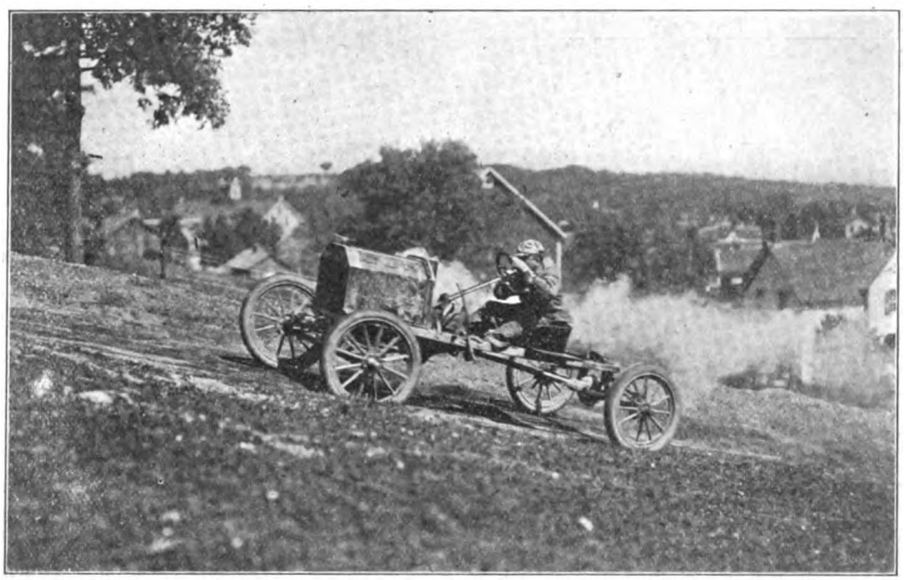
Although, as the feature event, the free-for-all naturally would be expected to produce the fastest time, this year was an exception, and it was in the class for cars between 301-450 cubic inches piston displacement, that Greiner and the National gained their greatest laurels. In the morning he thundered up the smooth and winding Phillips slant in the surprisingly fast time of 17⅘ seconds, cutting over 10 seconds from the record of 28 seconds made by Zengle in a Chadwick last year. In the afternoon Greiner attacked the new pimple and conquered it in 39⅘ seconds, the fastest time of the day. He equaled this mark again in another class, but no one else got under the forties. His total for both hills was 57⅗ seconds, the fastest total time of the day. Cooney, Velie, was the runner-up in this class, with a total of 1:01⅗, and Stickney, in a similar make of car, was third.

In keeping with its importance the free-for-all brought out a large field, nine cars starting. It also lived up to precedent by furnishing the closest and hottest compe-

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tition of the day. Greiner's most formidable opponent was his former companion in amateurism, Edward Hearne, with a Benz. This was the only foreign car in the contest, and lent to it an international flavor that was missing last year. It was nip and tuck between these two young stars, and after a heart-breaking struggle Greiner got the decision by a hair. In the morning he suffered his only defeat of the day when Hearne beat him up, Phillips in the same class under the formula with a percentage of 8.81.

The formula is a pet hobby of the Chicago Motor Club and is a feature of its annual climb. It consists in multiplying the cylinder capacity by the total time made in the price classes and dividing the result by the weight. This calculation worked out to the advantage of some cars which had not done so well on a straight time basis, and they achieved a higher standing under the mathematical scoring which puts a premium on weight, the lowest percentage being credited with the best performance. This honor went to a Staver driven by Monckmeier, who not only won under the formula in his class but did better than any other car competing in the handicap. His percentage was 7.41. This performance is all the more creditable in view of the car competing under more unfavorable conditions than any of the others. Greiner had weighed in with the car, intending to drive it, but Monckmeier was substituted, and he being lighter than Greiner, the judges refused to make the change and threw out the driver's weight altogether. The other winners under the formula were Pendleton, Cartercar; Monsen, Marion, and Seek, National. Seek was a two times winner, for he also annexed the same class in the straight time trials.



RICE (FORD) ON THE STEEP INCLINE OF THE MADE-TO-ORDER HILL

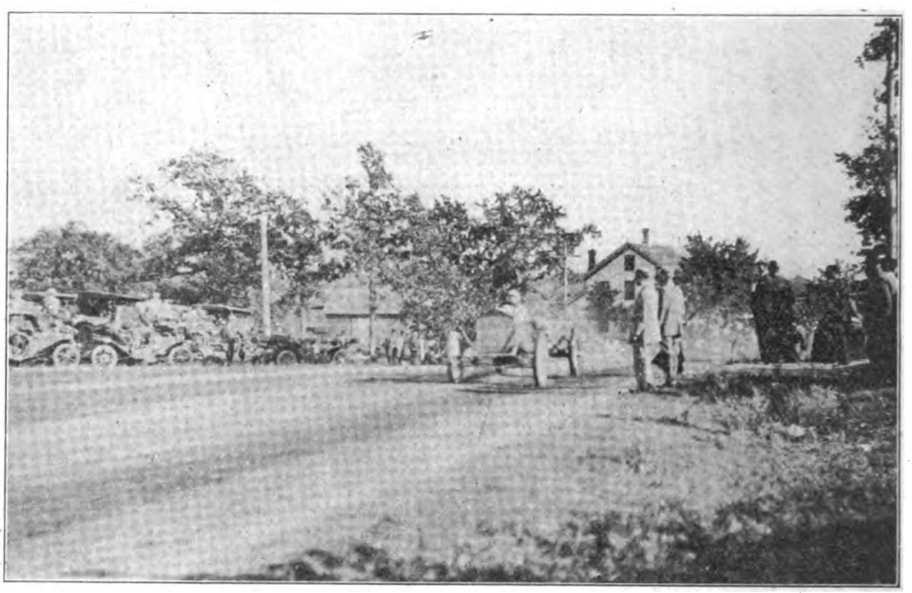
One of the snappiest and exciting fights of the day developed between Stickney, Velie, and Monckmeier, Staver, in the 161-230 class for stock chassis. Stickney was beaten on Phillips by two-fifths of a second, and trimmed Monckmeier on Algonquin by three-fifths of a second. Stickney's total time was 1:09⅘, a winning margin of one-fifth of a second.

Another pair who had a bone to pick, and made the fur fly whenever they met, were Callionette, the "Man in the Moon," and Gelnaw, Falcar. The former took the cream in the 300 and under division, clocking 1:01⅗ against 1:02⅕ for Gelnaw. The latter turned the tables in the 231-300 class, beating the Missourian by 2⅖ seconds. This latter class drew the largest field of the day, 10 cars starting. One of the most sensational exhibitions of the day was the work of the Fords in the $801-$1,200 class, which they won handily. Rice skimmed up both hills in 1.21⅗, and Gruener in another Ford took second.

registering 17⅗ seconds against Greiner's 18⅕. Greiner "came back" in the afternoon, however, and trounced Hearne on Algonquin by a slightly greater margin than the latter had scored in the morning, thus giving the National pilot the victory by a fifth of a second. Greiner's total time was 59⅕ seconds, and Hearne's 59⅖. Cooney, Velie, was a good third, and Englebeck, Stoddard-Dayton, captured fourth place.

Greiner and Hearne were the only starters in the 451-600 class, and again gave the spectators a delectable morsel of speed. This time, however, Greiner put it on his fellow townsman in decisive fashion, scoring a total of 57⅗ seconds and beating Hearne by exactly four seconds. Greiner topped both hills in winning time, 18⅖ and 39⅘ seconds, respectively. In the big class for cars between 601-750 cubic inches, Greiner had a walkover, being the only starter. His combined time for the two hills was 1:00⅗. For the second time Greiner won without opposition when he captured the 600 and under class. He made the double climb in 59⅘ seconds.

By a strange coincidence walkovers were the dessert for the fastest and slowest cars. Lincoln, in the little Brush, the only competitor in its class, twice rang in first. The first time was in the straight time tests when he won the $800 and under class by a double climb in 3:02. He scored again



GREINER (NATIONAL) WINNING THE FREE-FOR-ALL

Altogether both hills were climbed six times in less than a minute, Greiner doing the trick four times. Hearne and Gelnaw each did it once. This year the program was shorter, there being 18 classes against 22 last year. Among those discarded were the motor buggy and electric classes. The number of starters also shrunk, 59 cars starting against 85 in 1909.

One of the remarkable features of this

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year's climb was that no car costing over $3,000 competed, and the showing made by the medium price cars was better than that of their high priced brethren in years past. All but one of the cars competing were of the four cylinder type, sixes and twos being conspicuous by their absence.

Algonquin is situated 50 miles from Chicago and, being reached by good roads, the excellent weather served to lure thousands to the scene of battle. Hundreds of cars came from Chicago, while the surrounding territory sent its quota. Others came in teams, special trains, by bicycle and on foot. It was the gala day of the year in Algonquin, and the farmers made the most of it. Several of them turned an honest penny by renting parking spaces and selling lunches to the hungry visitors. The three card monte men, the shell men and the other expert exponents of making the quickness of the hand deceive the eye were on hand in force to reap their share of the loose change that was in circulation. They did a thriving business.

The hills were well oiled and groomed and were in excellent condition, which accounts for the very fast times hung up. Several of the veterans of former years were missing, and their places were taken by new recruits seeking fame and glory. Despite Greiner's annexation of the lion's share of the plums, honors were remarkably well distributed, eleven makes of car being represented in the winning column.

The Algonquin cup, the chief bone of contention, is a perpetual challenge trophy donated by the citizens of Algonquin in 1908, to be competed for annually. Greiner, after striving for the honor since it was hung up, is the third to have his name engraved on it, his predecessors being Frank Leland, Stearns, who won it in 1908, and Len Zengle, Chadwick, the 1909 winner. Neither was present this year.

## SUMMARY OF CHICAGO MOTOR CLUB'S HILL CLIMBING CONTEST AT ALGONQUIN, SEPTEMBER 17

### Fully Equipped Stock Cars.

Class A, Division 1A—$800 and Under.

| Driver and Car | Phillips Time | Algonquin Time | Total Time |
|---|---|---|---|
| Lincoln, Brush | 1:17 | 1:45 | 3:02 |

Division 2A—$801-$1,200.

| | | | |
|---|---|---|---|
| Rice, Ford | 0:27⅘ | 0:53⅘ | 1:21⅗ |
| Gruener, Ford | 0:31 | 0:55⅕ | 1:26⅕ |
| Pendleton, Cartercar | 0:32 | 1:00⅗ | 1:32⅘ |
| Harding, Oakland | 0:35⅗ | 1:00 | 1:35⅘ |
| Hammerly, Cartercar | 0:35⅗ | 1:05 | 1:40⅗ |

Division 3A—$1,201-$1,600.

| | | | |
|---|---|---|---|
| Dull, Parry | 0:24⅘ | 0:50⅘ | 1:15⅗ |
| Salisbury, Moline | 0:26 | 0:57⅘ | 1:23⅘ |
| Monckmeier, Staver | 0:31 | 1:06⅖ | 1:37⅗ |

Division 4A—$1,601-$2,000.

| | | | |
|---|---|---|---|
| Hearne, Jackson | 0:24 | 0:46 | 1:10 |
| Cooney, Velie | 0:23⅗ | 0:49⅖ | 1:12⅘ |
| Branstet'r, Kisselkar | 0:28⅗ | 0:54 | 1:22⅗ |
| Seek, Inter-State | 0:29⅗ | 0:55⅕ | 1:24⅘ |
| Monsen, Marion | 0:29⅗ | 0:57⅗ | 1:27⅕ |

Division 5A—$2,001-$3,000.

| | | | |
|---|---|---|---|
| Seek, National | 0:19 | 0:46 | 1:05 |

### Stock Chassis.

Class B, Division 2B—161-230 Cubic Inches.

| | | | |
|---|---|---|---|
| Stickney, Velie | 0:23⅕ | 0:46⅕ | 1:09⅖ |
| Monckmeier, Staver | 0:22⅘ | 0:46⅘ | 1:09⅗ |

Division 3B—231-300 Cubic Inches.

| | | | |
|---|---|---|---|
| Gelnaw, Falcar | 0:19⅗ | 0:40 | 0:59⅗ |
| Callionette, Moon | 0:19⅕ | 0:43⅕ | 1:02⅖ |
| Dull, Parry | 0:21 | 0:45 | 1:06 |
| Pearce, Falcar | 0:21 | 0:45⅕ | 1:06⅕ |
| Jackson, Pullman | 0:21⅕ | 0:45⅖ | 1:06⅗ |
| Hughes, Falcar | 0:21⅘ | 0:48⅗ | 1:10⅖ |
| Schoeneck, Kisselkar | 0:22⅖ | 0:49 | 1:11⅖ |
| Monsen, Marion | 0:23⅖ | 0:50 | 1:13⅖ |
| Turgeon, McIntyre | 0:22⅘ | 0:52⅘ | 1:15⅗ |
| Killip, Imperial | 0:28 | 0:53 | 1:21 |

Division 4B—301-450 Cubic Inches.

| | | | |
|---|---|---|---|
| Greiner, National | 0:17⅘ | 0:39⅘ | 0:57⅗ |
| Cooney, Velie | 0:19⅗ | 0:42 | 1:01⅗ |
| Stickney, Velie | 0:20⅗ | 0:41⅖ | 1:02 |
| Branstet'r, Kisselkar | 0:21 | 0:45⅖ | 1:06⅖ |
| Hearne, Jackson | 0:24 | 0:46⅘ | 1:10⅗ |
| Ireland, Midland | 0:20⅘ | 0:50⅗ | 1:11⅖ |
| Mattoon, Lexington | 0:25⅗ | 0:52⅘ | 1:18⅖ |

Division 5B—451-600 Cubic Inches.

| | | | |
|---|---|---|---|
| Greiner, National | 0:18⅖ | 0:39⅘ | 0:58⅕ |
| Hearne, Benz | 0:19 | 0:42 | 1:01 |

Division 6B—601-750 Cubic Inches.

| | | | |
|---|---|---|---|
| Greiner, National | 0:19⅗ | 0:41 | 1:00⅗ |

Division 3B—300 Cubic Inches and Under.

| | | | |
|---|---|---|---|
| Callionette, Moon | 0:19⅘ | 0:41⅘ | 1:01⅗ |
| Gelnaw, Falcar | 0:22 | 0:40⅕ | 1:02⅕ |
| Hughes, Falcar | 0:20 | 0:43⅘ | 1:03⅘ |
| Pearce, Falcar | 0:20⅖ | 0:44⅗ | 1:05 |
| Monsen, Marion | 0:23⅘ | 0:46⅕ | 1:10 |
| Schoeneck, Kisselkar | 0:22⅖ | 0:48 | 1:10⅖ |
| Turgeon, McIntrye | 0:23⅗ | 0:49⅕ | 1:12⅘ |
| Moritz, Henry | 0:27⅖ | 1:01⅖ | 1:28⅘ |
| Jackson, Pullman | Stalled | 0:50⅕ | —— |

Division 5B—600 Cubic Inches and Under.

| | | | |
|---|---|---|---|
| Greiner, National | 0:18⅘ | 0:41 | 0:59⅘ |

Free-for-All.

| | | | |
|---|---|---|---|
| Greiner, National | 0:18⅕ | 0:41 | 0:59⅕ |
| Hearne, Benz | 0:17⅖ | 0:42 | 0:59⅖ |
| Cooney, Velie | 0:19⅖ | 0:41⅖ | 1:00⅘ |
| Engleb'k, Stod.-Day. | 0:20 | 0:41⅘ | 1:01⅘ |
| Stickney, Velie | 0:19⅕ | 0:42⅘ | 1:02 |
| Ireland, Midland | 0:21 | 0:44⅘ | 1:05⅘ |
| Rice, Ford | 0:24 | 0:44 | 1:08 |
| Gruener, Ford | 0:21 | 0:48 | 1:09 |
| Mattoon, Lexington | 0:27 | 0:52 | 1:19 |

### Fully Equipped Stock Cars—Formula Class.

Class A, Division 1A—$800 and Under.

| Driver and Car | Phillips Per Cent | Algonquin Per Cent | Total |
|---|---|---|---|
| Lincoln, Brush | 3.88 | 4.93 | 8.81 |

Division 2A—$801-$1,200.

| | | | |
|---|---|---|---|
| Pendleton, Cartercar | 2.99 | 5.60 | 8.59 |
| Harding, Oakland | 3.33 | 5.58 | 8.91 |
| Hammerly, Cartercar | 3.31 | 6.02 | 9.33 |

Division 3A—$1,201-$1,600.

| | | | |
|---|---|---|---|
| Monckmeier, Staver | 2.36 | 5.05 | 7.41 |
| Dull, Parry | 2.75 | 5.54 | 8.29 |
| Salisbury, Moline | 2.80 | 6.23 | 9.03 |

Division 4A—$1,601-$2,000.

| | | | |
|---|---|---|---|
| Monsen, Marion | 2.73 | 5.27 | 8.00 |
| Cooney, Velie | 2.64 | 5.58 | 8.22 |
| Hearne, Jackson | 3.04 | 5.83 | 8.87 |
| Branstetter, Kisselkar | 3.06 | 5.79 | 8.85 |
| Seek, Inter-State | 3.35 | 6.24 | 9.59 |

Division 5A—$2,001-$3,000.

| | | | |
|---|---|---|---|
| Seek, National | 2.58 | 6.20 | 8.78 |

### Oldfield Defeated at Kalamazoo.

The defeat of Barney Oldfield by local talent and a thrilling accident that proved more disastrous to the machine than the man, constituted the highlights of the race meet Wednesday, 14th inst., at Recreation Park, Kalamazoo, Mich. The home luminary was Jack Towers, who in a Marquette-Buick won the 25 miles event for which Oldfield had been the favorite. It was during the third mile of that event the accident happened, a Jackson driven by F. W. Ellis, had a front tire blow out, while going at high speed. The car at once crashed through the fence, 60 feet of which was torn away, and then shot over the embankment to the ravine below, breaking off a tree. Although a 2 x 4 timber was driven through the radiator, Ellis kept his seat and escaped without injury, save to a finger. For 15 miles Oldfield led in the Knox, but Towers finally closed the gap when the Knox suffered a flat tire, and won handily in 27:10.

Ben Kerscher in his 100 horsepower Darracq drove two miles in 1:47. Oldfield in the Blitzen Benz negotiated a mile in 52⅖ seconds, which he claims is a new state record.

Robert Bondeman in a Buick won the five miles event in 6:16⅘, Thomas Orrell in a Hudson being second. Kerscher in his 100 horsepower Darracq at scratch won the free-for-all five miles handicap, defeating Ellis and Orrell. Kerscher's time was 5:16, the Jackson being second. Jack Towers in the Marquette-Buick captured the five-miles event in 5:24, F. W. Ellis in the Jackson being second, and Thomas Orrell, in a Hudson, third. The summary:

Twenty-five miles—Won by Jack Towers, Marquette-Buick; second, Barney Oldfield, Knox. Time, 27:10.

One mile time trial by Barney Oldfield, Blitzen Benz—Time, 0:52⅖.

Two miles time trial by Ben Kerscher in 100 horsepower Darracq—Time, 1:47.

Five miles for cars selling at $1,000—Won by Robert Boudeman, Buick; second, Thomas Orrell, Hudson. Time, 6:16⅘.

Five miles free-for-all—Won by Ben Kerscher, Darracq (scratch); second, F. W. Ellis, Jackson (30 seconds); third, Thomas Orrell, Hudson (60 seconds). Time, 5:16.

Five miles open—Won by Jack Towers, Marquette-Buick; second, F. W. Ellis, Jackson. Time, 5:24.

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## "T. R." SEES DEPALMA'S FLIGHTS

**Applauds New Yorker's Record-Breaking Performances at Syracuse—Robertson Has a Bad Day and Wins Nothing.**

With "T. R." and Lieutenant Governor White looking on and serving as honorary referees, not to mention the huge throng that gathered to see both Mr. Roosevelt and the sport itself, "automobile day" at the New York State Fair at Syracuse, which was celebrated on Saturday last, 17th inst., was very much more than an ordinary day.

Apart from the distinguished guests and the great crowd, the racing on the mile track proved spirited and interesting, and resulted in the shattering of several of those "world's circular dirt track records," which Messrs. B. Oldfield and William Pickens love so well.

Ralph DePalma and not Oldfield, however, was the record-shatterer. Oldfield himself was among the missing. He was picking something easier further west. However, Ralph DePalma, George Robertson, Louis Disbrow and John Juhasz came from New York City, Frank Kulick from Detroit, and Harry Endicott from Indianapolis, and with the local talent they provided entertainment and enough of it. It was thought that Robertson and DePalma would engage in stirring battle, but in a tryout the former broke the crankshaft of his big Simplex and used a borrowed Knox car, which was over-powered by DePalma's 90 horsepower Fiat and several other of the contesting cars. One third prize was all that Robinson could gather during the afternoon. DePalma, on the other hand, not only shattered records, but captured both the five miles and the ten miles free-for-all, in both of which Kulick was the runner-up. In both events DePalma averaged away under a mile a minute, doing the five miles in 4:24.15, a shade better than the dirt track record of 4:24⅕. Previously, however, DePalma, in a time trial, had covered the distance in 4:11.92, thirteen seconds inside the former figures. The young man from New York twice hurled himself and his Fiat against the mile record. On his first attempt he did 49:13, inside the record of 49:25 made by Oldfield at St. Paul the previous week, but not far enough inside to please DePalma. Accordingly he obtained permission for another go at it, and this time—and "T. R." having arrived meanwhile—he brought it down to 48.92. And they say "T. R." applauded.

Next to DePalma, W. King Smith was the biggest figure of the day. Driving a National he defeated Disbrow, National, and Endicott, Velie, in the 10 miles, 301-450 class, and he also took the 10 miles for Syracuse residents. In the 301-450 race Endicott's Velie took fire on the last lap and was considerably damaged, but the driver himself escaped unhurt. Richard Gleason, also in a National, was another Syracusan who showed the way home to visitors. In the 10 miles "under 450" class he romped in ahead of Juhasz, S. P. O., and Disbrow, National, in the good time of 9:57.26. The summary:

Five miles stock chassis under 300 cubic inches—Won by John Juhasz, S. P. O.; second, E. H. Sherwood, Mercer; third, Ellery Wright, Maxwell. Time, 5:28.92.

Ten miles, stock chassis 301-450 cubic inches—Won by W. K. Smith, National; second, L. A. Disbrow, National; third, Harry Endicott, Velie. Time, 10:10.76.

Mile trials by Ralph DePalma, 90 horsepower Fiat, against "world's mile circular dirt track record of 49¼ seconds" made by Oldfield, Benz—First trial, 0:49⅕; second trial, 0:48.92 (Record).

Ten miles, stock cars sold by Syracuse dealers and driven by local residents—Won by W. K. Smith, National; second, Roy Hawkins, Simplex; third, Charles Rollins, National. Time, 12:49.60.

Ten miles handicap, free-for-all—Won by Frank Kulick, Ford; second, Richard Gleason, National; third, E. H. Sherwood, Mercer. Time, 11:19.73.

Five miles against time by DePalma, "90" Fiat, to lower his own mark of 4:24.2—Time, 4:11.92 (Record).

Five miles free-for-all—Won by De Palma, Fiat; second, Kulick, Ford; third, Robertson, Simplex. Time, 4:24.15.

Ten miles free-for-all—Won by DePalma, Fiat; second, Kulick, Ford; third, Rollins, National. Time, 8:50.11.

Twenty-five miles, stock chassis under 450 cubic inches, cut to 10 miles on account of darkness—Won by Richard Gleason, National; second, John Juhasz, S. P. O.; third, L. Disbrow, National. Time, 9:57.26.

### Oldfield "Shows" at His Old Home.

Barney Oldfield, who is now making a circuit of the fall festivals in Michigan and Ohio, and dividing honors with the pumpkins, reached Toledo last Saturday, 17th inst., when he cut the mile record on a half mile circular dirt track to 1:04⅕. The previous notch was 1:06¾, made by himself last year at the Findlay (Ohio) fair. Toledo is Oldfield's former home, so he occasionally gets around there to clean up odd track marks that may be scattered about. Oldfield, however, doubtless for some good but unexplained reason, did not go against the mile record as announced in advance. Ben Kerscher in his Darracq took a hand in breaking things by lowering the track record for two miles by two seconds, to 2:20. A three miles handicap race was arranged between Oldfield and Jake Meizinger in an E-M-F, and the latter won by three seconds, with a handicap of 30 seconds.

## OLDFIELD GOES TO GRAND RAPIDS

**He and Kerscher Engage in Their Usual Time Trials but Meet Defeat in the Handicap Event.**

The fastest time ever made in Michigan for one, two and five miles were hung up by Barney Oldfield and Ben Kerscher in the automobile meet the 15th inst. at Comstock Park, Grand Rapids. In two trials. Oldfield did the mile in 51⅘ seconds and two miles in 1:45. Kerscher's time for five miles was 4:38⅖.

Of the competitive events, William Fair in a Buick won the five miles for Class C stock cars in one of the best contests of the day. He took the lead immediately and never was headed, but he was given a close run by George Clarke in the Cutting. The time was 5:19⅗. Jack Tower in a Buick won the five miles race for larger cars in 5:17. He was being pushed hard by Clarke when the latter was forced to quit owing to engine trouble. In the 10 miles event, however, Clarke defeated Tower by half a lap in 10:19⅗.

Oldfield in the Knox and Clarke in the Cutting were the only ones to start in the 25 miles free-for-all, and of course Oldfield won in 24:46⅗. Clarke, who received 20 seconds allowance, took the five miles handicap in 5:03. Kerscher in the Darracq (scratch) was second and Oldfield in the Knox, with five seconds allowance, third. Clarke, with 10 seconds allowance, met with the blow-out of a rear tire on the first lap of the three miles handicap, while leading the field, and had to withdraw. Oldfield then went ahead and won from Kerscher in 3:01⅘. The summary:

Twenty-five miles free-for-all—Won by Barney Oldfield, Knox; second, George Clarke, Cutting. Time, 24:46⅗.

Five miles handicap—Won by Clarke, Cutting (20 seconds); George Padley, Henry (1.10), second; Oldfield, Knox (5 seconds), third; Glenn Austin, Maxwell (1.10), fourth; Kerscher, Darracq (scratch), fifth. Time, 5:03.

Three miles handicap—Won by Oldfield, Knox (5 seconds); second, Kerscher, Darracq (scratch). Time, 3:01⅘.

Ten miles, Class C—Won by Clarke, Cutting; second, Tower, Buick; third, Padley, Henry. Time, 10:19⅗.

Five miles, Class C—Won by Jack Tower, Buick; second, Padley, Henry. Time, 5:17.

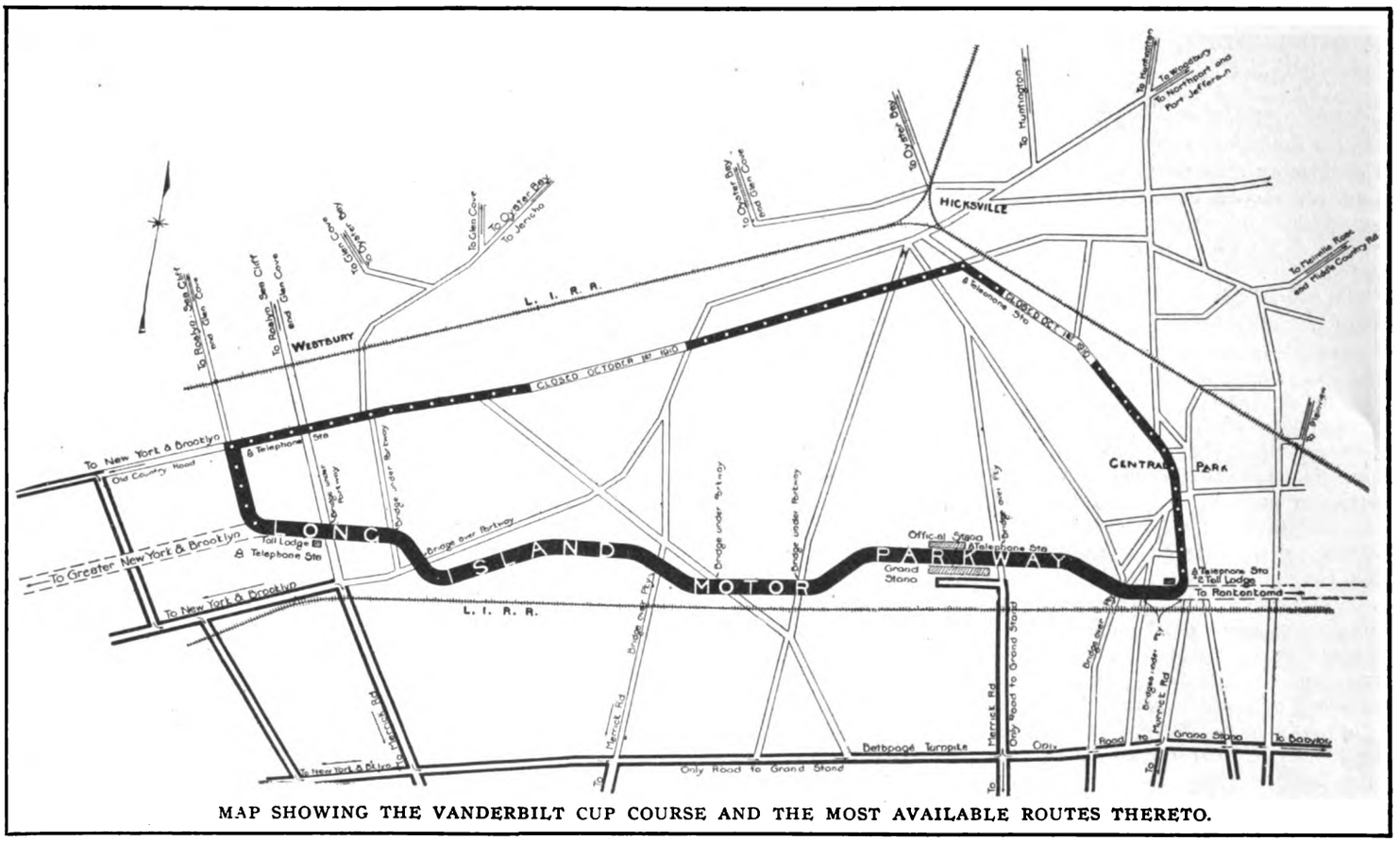
Five miles, Class C—Won by Fair, Buick; second, Clarke, Cutting; third, Austin, Maxwell; fourth, Padley, Henry. Time, 5:19⅗.

Five miles match—Won by Austin, Maxwell; second, Padley, Henry. Time, 6:02⅖.

Five miles time trial—Kerscher, Darracq. Time, 4:38⅖.

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# Preparations for Vanderbilt Race in Full Swing




MAP SHOWING THE VANDERBILT CUP COURSE AND THE MOST AVAILABLE ROUTES THERETO.

Practice for the Vanderbilt cup race on October 1st was begun at daylight Tuesday morning over the Long Island Motor Parkway, when the veteran Leland Mitchell in H. B. Harris's Simplex and Walter Jones in the two-cycle Amplex of S. J. Wise & Co., made the circuit in 12 minutes 18 seconds and 11 minutes 52 seconds, respecticely. The former was with standing start, while the latter got away flying. Jones is only 20 years old, but has had much experience. Mitchell piloted the Harris Simplex last year in the same event.

Both the Speedway and the country roads which are included in the course have been well oiled and are in prime condition, and 25 signal men with red and white flags already are on duty to contribute to the safety of the practice spins. The white flag signifies danger to the drivers, the red safety; to the public the interpretation would be the reverse.

Hereafter daily practice is to be the rule, except Sundays, between 5 and 8 a. m. In connection with the trials there will be a welcome innovation through the introduction of the Warner automatic timing instrument, which is to be in operation one week before the contest. In previous years drivers frequently have been credited with absurdly fast speed during their try-outs, which will no longer be possible. The practice times are to be taken officially by Messrs. Poertner, Knipper and Interrieden.

## ENTRIES TO DATE.

### For Vanderbilt Cup Race.

1—Benz, George Robertson.
2—Benz, Edward A. Hearne.
3—Benz, David Bruce-Brown.
4—Alco, Harry F. Grant.
5—Pope-Hartford, Jack Fleming.
6—Pope-Hartford, Bert Dingley.
7—National, John Aitken.
8—National, Al Livingstone.
9—Simplex, Leland Mitchell.
10—Simplex, Ralph E. Beardsley.
11—Lozier, Ralph Mulford.
12—Marquette-Buick, Louis Chevrolet.
14—Marquette-Buick, Robert Burman.
15—Marquette-Buick, Arthur Chevrolet.
16—Apperson, Harris Hanshue.
17—Marmon, Joe Dawson.
18—Marmon, Ray Harroun.
19—Jackson, E. F. Sheifler.
20—Corbin, Joe Matson.
National, Louis Disbrow.
Amplex, Walter Jones.

### For Wheatley Hills Sweepstakes.

31—Marion, Marcel Basle.
32—Marmon, not named.
33—Mercer, E. H. Sherwood.
34—Corbin, A. J. Maisonville.
S. P. O., Jean Juhasz.
Correja, not named.

### For Massapequa Sweepstakes.

41—Cole "30," Bill Endicott.
42—(Open).
43—Cole "30," Louis Edmunds.
44—Lancia, William Knipper.

A majority of the camps already are pitched. The Simplex and Marquette-Buicks are at Huntington, the Corbins at Hicksville, the Marmons at Krug's Corner, the three Nationals, the Mercer and the Roebling-Planche at Garden City, and the Alco at Mineola. The Marquette-Buick team consists of Louis and Arthur Chevrolet and Robert Burman, and the Marmon team of Ray Harroun, Joe Dawson, Dave Buck and Louis Heinemann. The Chevrolets, by the way, are attempting to devise a new signal system in order to indicate correctly from the pits their position in the contest. Last year, it is stated, a mistake in the interpretation of a signal caused an accident that put their car out of the running.

Harris Hanshue, who will drive the Apperson, lives in Los Angeles and has not previously raced in the East. He is widely known, however, on the Pacific slope, where he last year won the classic Portola race, also the Ferris cup. Somehow there is a decided Western influx this year, for William Endicott of the Cole, Al Livingstone of the National, and Jack Fleming of the Pope-Hartford, all gained prominence west of the Rockies. Bert Dingley, now of the Pope-Hartford staff, is also a California resident. E. F. Scheifler, the Jackson

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driver, is another Westerner about to make his debut in the East, while Lee Oldfield, of Los Angeles, is slated to pilot one of the six Abbott-Detroit cars, which their makers say have been entered—three in the Vanderbilt and three in the Massapequa sweepstakes—but inquiry yesterday (Wednesday) disclosed that the entries had not reached headquarters.

With more than thirty entries already in hand, the success of the contest, so far as the number of starters is concerned, is assured. A list of not less than forty is expected.

The course this year is again partly made up of a section of the highway system of Nassau county, including the Massapequa and Old County roads, now in the pink of perfection. The turns this season, with the exception of that at Massapequa, which has an acute angle, will not be banked as formerly. Instead the one at Westbury in particular and all of them in general will be broadened and at the same time made flat, so that the swing need not be so sharp. The complete circuit is the same as last year, 12.64 miles long, which, with 22 laps being made, gives 278.08 miles as the exact distance to be covered in the Vanderbilt cup event. Incidentally nearly twenty-five miles of practically completed motorway will, on the date of the race, be added to the 20 miles thrown open to the public last June.

Instead of the 9 o'clock start made last fall, the getaway will be made at daybreak, as in the earlier years of the race; that is, unless fog should prevent. In case of haze the start will be made the minute the atmosphere is clear enough to ensure safety.

It seems well nigh certain that faster time than ever will be made this year, barring heavy rain or high winds, for aside from the general improvement in mechanical construction of the cars the surface of the Parkway is appreciably smoother than a year ago. Extensive touring over it this season has worn the cement enough to foreshadow less tire trouble than previously, while every year's experience betters the condition of the Nassau roads.

The Vanderbilt event is open to cars with piston displacement of not less than 301 nor more than 600 cubic inches, according to the conditions of Class C in the 1910 rules of the contest board of the American Automobile Association. There are no other restrictions, provided the manufacturer has built 50 cars of the same model during the year preceding the event. Cars of 4C and 5C divisions will compete as one class, the winner to receive in addition to custody of the cup, a bronze plaque and $2,000 in cash.

In addition to the Vanderbilt cup contest, the main event, there are two other competitions—the Massapequa and the Wheatley Hills sweepstakes. The cars in each are to be started an hour or thereabouts after the candidates for the Vanderbilt trophy, the idea being to promote enthusiasm by a bunched finish. The two subsidiary events are open for cars in Class B of the 1910 rules of the contest board of the American Automobile Association, including 2B for cars of 161 to 230 cubic inches and 3B for cars of 231 to 300 cubic inches. The Massapequa sweepstakes for cars in Class 2B (161 to 230 cubic inches) will have a trophy and $1,000 in cash for the winner. The Wheatley Hills sweepstakes for cars in Class 3B (231 to 300 cubic inches) will also have a trophy and $1,000 in cash for the winner. There will be ten laps in the Massapequa class, a total of 126.4 miles. The Wheatley Hills class will cover the course 15 times, equivalent to 189.6 miles.

In order to supplement the train service and secure more direct routes, the Motor Cups Holding Co. has made special arrangements with the Long Island Sound ferry companies on the day preceding the contest. The boats included run from Rye to Sea Cliff, Stamford to Cold Spring, Bridgeport to Port Jefferson, and New London to Greenport.

There will be the usual social groups, according to clubs and cars. The Long Island Club has secured parking space for 1,000 cars, and another large plot is reserved for the New Haven club. Among the car coteries, the Pope-Hartford will perhaps be the most notable. The Pope-Hartford Manufacturing Co. has reserved space 600 by 300 feet east of the grand stand, along with tents where light breakfast will be served. Many invitations to Pope-Hartford owners to join the throng have been sent out.

The temporary offices and information bureau of the Motor Cups Holding Co., at Room 212, Long Acre building (Broadway at 43d street), is open from 9 a. m. to midnight. The 'phone number is 588 Bryant.

### British Attitude Toward Road Racing.

Much adverse criticism has developed abroad over the decision of the Royal Automobile Club not to hold a road race next year on the Isle of Man. It was the opposition of the Society of Motor Manufacturers, however, that actually determined the matter, the club itself not being adverse to the idea. The outcome leads the foreign trade press to insist upon a point of which much has been heard in this country for several months—that events should be promoted for amateurs—that is, owners and not for manufacturers. It should not be understood, however, that all makers of cars in the British Isles are opposed to racing events, there being a minority strongly in favor of such competitions. This minority would undoubtedly jump at the chance to enter special classes, in case the club arranged a program particularly for amateurs. The majority of the manufacturers, however, seem to be "dead set" against every form of competition, no matter how inexpensive. The Royal Club, it is urged, will lose its hold on the industry if competitions are abolished, inasmuch as it will be impossible to disqualify makers on the score of abuses.

### "Outlaw Chauffeurs" in Law's Toils.

What is described by indignant Brooklyn citizens as a company of "outlaw chauffeurs" was rounded up by Chief Taxicab Inspector John Drennen near the Atlantic avenue subway station on Monday, 16th inst. It seems that eight chauffeurs (who possessed neither licenses nor registration numbers, nor any one of the other half dozen requirements which a taxicab chauffeur in the city of Greater New York should fulfill before plying his trade as a public hackman) established a stand opposite the subway station and proceeded to charge double and triple rates to their unlucky "fares." In place of registration numbers the taxicabs are said to have been fitted with hieroglyphic signs which no man could make out, so that complaints made to the bureau of inspection proved useless. Finally Inspector Drennen decided on a general round-up and caught the eight in the net.

### Germans Promoting International Contest.

The Kaiserlicher Automobile Club and the German Motor Car Manufacturers' Association have decided that competitions during the next three years for the new trophy offered by Prince Henry shall be held annually in two countries. It is proposed to run the first contest—that of 1911—over a course of 2,500 miles, partly in Germany and partly in Great Britain, while the second and third competitions—in 1912 and 1913—would be held in Germany and Russia, and in Germany, Italy and Austria-Hungary. It is proposed that each of the national clubs concerned in each of these events shall be represented by a team of 50 cars, and the trophy will go to the team having the smallest penalization. In events for the new trophy there will be no speed trials.

### Thieves with an Eye to Accessories.

Although thefts of automobiles and tires are becoming so frequent as to excite little comment, occasionally a new wrinkle is introduced into the kleptomaniacal performance which lifts it above the level of an ordinary theft, as in the case of a touring car belonging to Dr. Charles Meisley, which was stolen while standing in front of one of New York's famous "beaneries" on upper Broadway around 3 a. m. The thieves drove it to West 24th street near Eighth avenue, where they unscrewed the lamps, rifled the tool box, ripped off all four tires and disappeared with this loot. The "stripped" car was left standing in the dark side street until discovered by a patrolman. Evidently the thief knew that accessories are more easily disposed of than a car.

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## TERRY BACKS ATTORNEY-GENERAL

**Did Not Reverse Himself, He Declares—No Justification for Misinterpretation of His Reciprocity Ruling.**

In the opinion of Charles Thaddeus Terry, Esq., chairman of the legislative board of the American Automobile Association, all of the Albany (N. Y.) correspondents, who apparently drew their inspiration from official sources, and all others who believe that Attorney-General O'Malley had reversed himself in the matter of inter-state reciprocity, did a considerable injustice to that gentleman. So long as approval of his course in apparently deciding that the "like exemption and privileges" accorded by New York state to non-resident motorists meant the same sort of exemption, no more or no less, than is accorded by other states —so long as this was the rule, Mr. O'Malley did not seem to be concerned about the misinterpretation of his opinion, but when criticism and opposition arose and attained volume, the concern quickly became evident and further explanation, which certainly made appear that the Attorney-General had diplomatically reversed himself, at once was forthcoming. Counselor Terry, however, believes that at no time was the O'Malley opinion susceptible of misinterpretation and that he was placed in false light by the many reports that grew out of it. In a courteous letter to the Motor World, defending the state official, Mr. Terry says:

"I have noticed in the issue of Motor World of September 8th, 1910, an article designated 'All Welcome Except Jerseyites. New Decision of New York State's Attorney General Removes Restrictions on Visitors—Reverses Himself.'

"I ask your indulgence in permitting me to say that, as a matter of fact, it is a considerable injustice to Attorney-General O'Malley to say that he has reversed himself, or to otherwise indicate that his original opinion, with reference to the rights of non-resident motorists upon the highways of New York state, has been changed. In truth he has not reversed himself nor changed front in the slightest degree. His opinion, originally rendered in August, 1910, was perfectly clear, logical and, in my judgment, sound, as to the relations of non-resident motorists to the use of the highways of this state under the motor vehicle statute passed at the last session of our legislature. To be sure, his opinion was misinterpreted by a too hasty examination by many motorists and others in Connecticut, Massachusetts, Pennsylvania and even in New York state. There was no large justification for a misinterpretation of Mr. O'Malley's opinion, because it was couched in perfectly simple and clear language, and the conclusion which he reached was set forth explicitly and in unambiguous terms. How the misunderstanding arose in the minds of those above mentioned, I cannot undertake to explain. But I do know that it was a misunderstanding from the start, and that there was not very great ground for it.

"Attorney-General O'Malley's memorandum of September 2d was not in any sense a reversal of his former opinion, nor did it alter it in the slightest. It was simply an explanation put in other terms of what he had said with sufficient clearness before. I write this in the interest of simple fairness, and in order, if possible, that the Attorney-General may be relieved of the slightest suggestion of having made an error in the first instance. Attorney-General O'Malley and Secretary of State Koenig have so promptly and clearly set forth their views upon every controverted point arising under the statute, thus far, that they should receive the heartiest commendation of all motor vehicle users and others interested in the traffic by this class of vehicles upon our highways."

### Frelinghuysen Feels Effects of His Law.

Joseph S. Frelinghuysen, who gave New Jersey an automobile law that proved a boomerang, will not be governor of that state. His burning desire to serve it in that capacity was sadly blighted on Tuesday last when the Republican state convention met in Trenton. Frelinghuysen was one of the four men who sought the gubernatorial nomination and whose names were presented. He finished fourth, receiving but 53 of a total of more than 1,000 votes. That his attitude to automobilists and their attitude toward him contributed to the disfavor in which he was held as a vote-getter there is no doubt. The convention also took notice of the Frelinghuysen law in its platform, but in a fashion that really signifies little. The plank dealing with the subject is as follows:

"We heartily indorse the policy inaugurated by the Republican party of using all revenue from automobile licenses for the repair and maintenance of our splendid system of improved roads, and we advocate such legislation with respect to automobiles as shall be just alike to the automobilists and to the taxpayers of this state, and, also, properly promote the reciprocal relations between this and other states with respect to the use of their respective highways by non-resident automobilists."

### Ontario-Upland Club is Organized.

Twenty-four owners of motor cars of Ontario and Upland, Cal., have organized the Ontario-Upland Automobile Club. W. A. Freemire, Jacob Jesson, W. L. Malone and N. A. Cavanagh are among the charter members.

## TAXICABS ARE HACKS, SAYS COURT

**Discrimination Against Them Declared Unconstitutional—Advantages and Volume of Business Can't be Taxed.**

Although it appears to be legal to impose on owners and operators of self-propelled pleasure vehicles fees and licenses not exacted of those who pursue pleasure in horse-drawn rigs, Judge Bischoff, in the New York Supreme Court, on Thursday last, 15th inst., ruled that practically similar discrimination of the sort when applied to business vehicles is unconstitutional. He held that because one form of vehicle possesses advantages over another form is not lawful reason why it should be subjected to higher fees or discriminated against.

Judge Bischoff's decision was rendered in a test case instituted by the Universal Taxicab Co. to restrain the City of New York from enforcing the new ordinance subjecting taxicab companies using meters to a higher license rate and lower fare than other public vehicles.

That the Court's research on the question was exhaustive is indicated by his opinion, which begins:

"A 'hack' or 'hackney coach' is a vehicle offered for hire from its stand in the public thoroughfare and intended for the use of passengers. It is of ancient origin. Samuel Repys in his diary, written between the years 1660-1669, mentions the fact that he took a 'hackney coach' over London Bridge (Pepys's Diary II., 320), and it derived its name from Hackney, a metropolitan borough in the northeast of London, between which and London its use is supposed to have been the first instituted. In the sense, therefore, that the motor vehicles operated by the plaintiff are offered for hire from its hack stand in the street they are 'hacks' or 'hackney coaches,' by whatever other name they may be called."

Last August by amendments to the city ordinances all motor vehicles equipped with a taximeter had their license fee increased to give the city money to hire inspectors to examine the taxicabs, and were required to reduce their fare from 50 cents for the first half mile to 40 cents. The Court says:

"These amendments are assailed by the plaintiff as contrary to the Fourteenth Amendment of the Constitution of the United States in that they deny to the plaintiff and others similarly situated the 'equal protection of the laws,' and this motion is made for an interlocutory injunction to restrain the enforcement of such amendments pending this action for permanent injunctive relief. That the complaint is well founded seems an irresistible conclusion.

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"Nothing in the ordinances as amended points to any just cause for any differentiation between vehicles equipped with taximeters and those not so equipped. Both classes are employed in identically the same business, and the owners or operators of both are therefore entitled to be treated alike. There is nothing unlawful in the use of the taximeter, and it is beyond the power of the State in the exercise of its police power and of the municipality in the exercise of its delegated power to impose upon the owners or operators of vehicles equipped with a taximeter the necessity of abandoning its use to escape the higher license fee and the lesser maximum rate of fare.

"The discrimination against the use of taximeters seems wholly arbitrary, and indeed the only reason given by counsel for the defendants for it is that since the taximeter as a means of detecting errors and impositions in the charge for hire of vehicles so equipped will draw to the owners and operators the larger share of public patronage they should be content with the payment of a higher license fee and a lesser maximum rate of fare.

"As well might the municipal legislative body have discriminated against clocks or watches carried by the operators of such vehicles, or other devices calculated to measure the time of travel, or between vehicles furnished with cushioned seats, mirrors and haircomb and brush, and others not so furnished.

"This argument plainly is one in favor of penalizing him who because of the better accommodations in his business attracts to himself the greater favor of patronage, and involves a tax purely and simply upon one the volume of whose business may exceed that of his competitor engaged in essentially the same business. That such a tax infringes upon the constitutional provision hereinbefore alluded to was emphatically ruled by the Supreme Court of the United States in Cotting vs. Kansas City Stock Yards Company (183 U. S. 111).

"Says Mr. Justice Brewer, writing the opinion of the court in the case last alluded to: '* * * We must * * * always remember that the equal protection of the laws is denied when upon one of two parties engaged in the same kind of business and under the same conditions burdens are cast which are not cast upon the other. * * * If once the door is opened to the affirmance of the proposition that a State may regulate one who does much business while not regulating another who does the same but less business, then all significance in the guarantee of the equal protection of the laws is lost.'"

If Justice Bischoff's decision is sustained by the higher courts the city will have to make some other provision for the maintenance of the special bureau of taximeter inspectors than obtains at present, since no appropriation was made for running the taximeter bureau except from the increased taxation upon the 2,000 taximeter cabs in the city. The New York Transportation Co., which operates the largest number of taxicabs, has been paying the increased tax under protest, although no point was raised as to lowering the rate.

John H. Naughton, treasurer of the Universal Taximeter Cab Co., said that if the Appellate Court upheld the ordinance in question his company would take out the taximeters and run cabs under the old coach ordinance, under which the company could charge $1 for the first hour—a move that would serve further to expose the ridiculousness of the ordinance.

### Liberal Law that is Being Abused.

It was not until the new Motor Car Acts —the automobile law of Victoria and New South Wales—went into effect, that the great number of automobiles at present in use on the Australian continent became generally known. In fact, the totals came as a surprise to even well informed people, for no one imagined that there could be 3,500 automobiles and 2,500 motorcycles on the highways of these two states, as the registration figures prove. As the entire population of the two states does not exceed 2,800,000, in the aggregate, the proportion is a large one.

Reports from Melbourne indicate that there is little friction between motorists and the police, because the regulations for the administration of the new law are cast in reasonable, liberal lines. A speed limit, as a good many American judges, police officers and nearly all motorists assert, is useless in a city, and in Victoria a speed limit has been omitted. Ordinarily, vehicular traffic (which may, if necessary, be construed so as to include automobiles) is limited to ten miles an hour in Melbourne, but this does not give motorists the license to travel at that pace. They are required to move at a "rate which is safe and mindful of the common danger," even if it be only two miles per hour. On the other hand, they may speed along at a 20-mile clip, or even faster, through the principal streets, when the exigencies of the traffic permit it, simply because it is recognized that there is no danger when the streets are free of traffic.

But although little friction is likely to arise over the traffic regulations or the registration requirements, there is one privilege of the new law which is being grossly abused, and that by members of the trade. Dealers and manufacturers of motor vehicles are permitted to register all their cars under a blanket registration number, which carries the letter "A" behind it, similar to the "M" required by the New York law. These plates are numbered in rotation and for the privilege of using them, the dealer pays an annual registration fee of $15.75. They may be used legitimately only on cars (a) that are on a trial run after being built, or (b) on a trial run with a prospective purchaser. It now appears that the dealers and agents continually use cars with the trade numbers, to transact their private business, for pleasure trips, and even for public hire. One firm is said to have about twenty cars out on the streets, all running under the same registration number. Such wholesale abuse of a privilege, of course, could have but one effect, and the police authorities are now taking steps to prosecute the offending firms.

Motorists, cyclists, and almost everyone else considers the Victorian Act, as it is called, the most liberal and equitable measure in operation in any country, and they greatly deplore the abuse by the dealers themselves, as it may lead to a revision of the act by Parliament, which may prove of inconvenience to the traders' section. Only a few arrests have been made for violation of the regulation by others than dealers. Two or three arrests for speeding when the condition of the streets did not warrant it, a few fines for being without number or rear tail light, and a small fine for a smoky exhaust make the record for the first month or so of the new act.

### New Clubs Formed in Many Places.

The Middle Georgia Automobile Association has been launched at Jackson, Ga. Its officers are W. H. Mallet, president; Paul Turner, vice-president; R. A. Franklin, treasurer, and J. D. Jones, secretary.

The Western Illinois Automobile Club is the title of a new organization which has been formed at Monmouth, Ill. The officers of the club are: W. G. Stevenson, president; R. R. Murdock, vice-president; I. F. Dains, secretary; H. B. Smith, treasurer.

The Gardner Automobile Club is the name of a new club organized at Gardner, Mass., with the following officers: Theodore L. Harlow, president; L. H. Greenwood, vice-president; Fred H. Follett, secretary; George T. Greenwood, treasurer.

With E. H. Croninger as president, the Kenton County Automobile Club just has been organized at Cincinnati, Ohio. The other officers elected are as follows: William A. Kaiper, vice-president; Dr. W. Wyman, secretary; B. Adams, treasurer.

Under the style the Georgetown Good Roads & Drainage League, a large number of automobile owners and farmers of Georgetown, S. C., have organized a club and elected the following officers: J. B. Johnson, president; M. S. Bellune, vice-president; H. L. Oliver, secretary and treasurer.

Nearly fifty automobile owners of Norwalk, Ohio, "got together" and organized the Huron County Automobile Club, with the following officers: Dr. S. E. Simmons, president; J. R. Wetmore, vice-president; F. W. Watson, secretary; I. W. Goodell, treasurer. Dr. Simmons, F. W. Watson and F. Burk form the executive committee.

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## EVERITT LINE IS ENLARGED

**Hereafter Will Consist of Six Models, Including Closed Fronts, of Course—Mechanical Features Unaltered.**

By the addition of two new body styles to its list the Metzger Motor Car Co., Detroit, Mich., has increased the range of its product to six different models, all of which are founded on the same chassis. The chassis is similar to that produced hardly a year ago, when the Everitt "30" first was introduced to the public. The bodies, of course, are strictly up-to-date, particularly the two innovations, which are of the closed front pattern.

The entire line as now constituted includes the standard touring car, small tonneau, five passenger closed front touring car, four passenger closed front touring car, inside driven coupe and light delivery wagon. The standard touring model is distinguished for its great breadth of rear seat, this portion of the body being no less than 48 inches wide at the cushion and 52 inches across the shoulders. The small tonneau car is arranged with lower seats than the touring car, and with a steering column having a more acute angle than that of the touring car. The tonneau is detachable and may be removed by releasing only two bolts.

For neat condensation of style and comfort, however, attention must be directed to the new closed front models. The accompanying illustrations show how the draughtsman has worked out the straight line effect, very much after the torpedo fashion, without rendering the vehicle trappy in appearance and without sticking too close to the conventional. Both doors are of the same height, but the top moulding does not come above the line of the hood. The fenders in front are curved on the inner side, and in the rear follow the wheel line to the back of the body. The five passenger form is the largest body built on the Everitt "30" chassis.

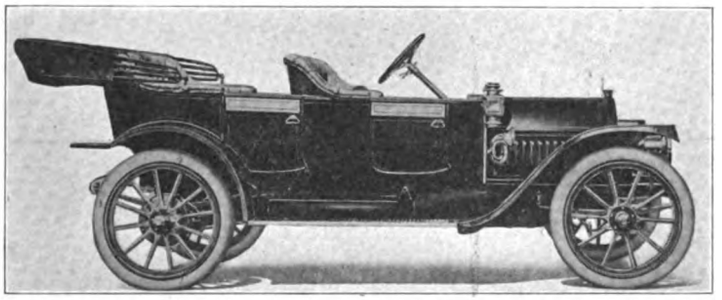
The closed front close coupled pattern is a reduced form of the car just described, built to accommodate four passengers only, but otherwise much the same in general style. In both these vehicles, all levers are placed inside the body, due care being taken to ensure ample room for the fingers so that there shall be no danger of jamming them when operating the levers. The control devices are placed within easy reach of the driver and are of the standard arrangement.

By all odds the most interesting portion of the machine is the motor, which is a peculiarly clever adaptation of the block principle. The four cylinders, with their water jackets, valve pockets, the upper half of the crank case, the inner half of the two-to-one gear housing and the supporting arms, as well as the cam shaft housing, all are included in a single unit casting, most wonderfully cored and machined. This arrangement has been so contrived that the lower part of the case, which comprises the usual oil pan, may be dropped and the crank shaft, or even the pistons and connecting rods removed, without disturbing the motor in the chassis. As the water pump and magneto supporting brackets are carried on the upper part of the case, this process is rendered extremely simple. The cylinder dimensions are 4 by 4¾ inches, bore and stroke.

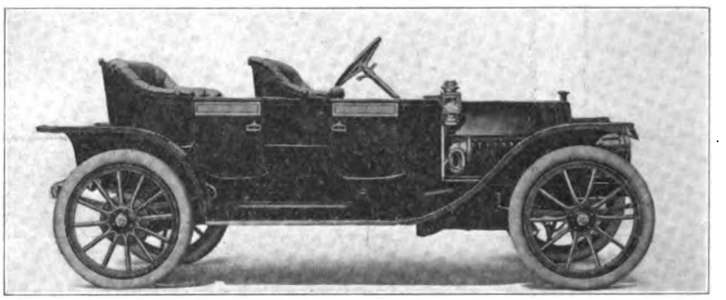
The valves are mounted in pockets on the left side and operated from a single cam shaft mounted on two bearings. Because of the nature of its mounting the shaft is of very rigid construction and of 1¼-inch diameter, the cams being forged integral.

As has been the case in models produced up to this time, engine lubrication is accomplished by a modified splash system, provision being made for the replenishment of the case by automatic means, somewhat on the order of the system used for supplying drinking fountains from large bottles.

The master clutch is of the leather-faced cone type with relieving springs underneath the leather. The change gear set is embodied in the rear axle construction and is of the selective pattern, affording three forward speeds. The axle bridge is made up of a malleable center casting and steel tubular end sections, forced into place and pinned. It is trussed and very rigid. Double brakes are employed on the wheels, the linkage being laid out for straight line pulls on all the members. The spring suspension is semi-elliptical in front and of the full elliptical-scroll end pattern in the rear. The wheel base is 110 inches, and the wheels are 34 inches in diameter, shod with 3½ inch tires.



EVERITT "30" FIVE PASSENGER TOURING CAR



FOUR PASSENGER CLOSE COUPLED TOURING CAR

### Uneven Running Due to Valve Tappets.

It is a melancholy fact that certain engines, of the sort such as frequently are installed in automobiles of the cheaper grade, frequently evince a tendency to uneven running after they have been in service for some little time. On careful inspection it may be found that this results from an obscure ailment of the valve mechanism. The use of too soft metal in the valve tappets may result in the "upsetting" of the working surfaces of one or more parts, thus increasing the clearance under the valve stems and so delaying the opening of the valves. A difficulty less easily discovered arises from the presence of a "soft spot" in one of the cam surfaces. This will cause the cam to wear unevenly and besides reducing the lift of the valve will upset the timing and cause the explosions to be less powerful than in the other cylinders.

### To Secure Mats to Floor Boards.

Shellac, dissolved in the form of a thick syrup, is all that is needed to secure rubber or oil-cloth mats to the floor boards of the car in a satisfactory and permanent manner. Two or three coats should be applied to the floor and allowed to become "tacky" before the covering is put in place. After being pressed down firmly at all points, the rubber or fabric should be weighted and permitted to remain undisturbed for five or six hour—longer if possible.

### To Assist Starting of Cold Engine.

To avoid delay and possible difficulty in starting a cold engine, it is well to open the throttle wide and swing the crank a few times with the spark cut off. The effect of this will be to fill the cylinders and inlet manifold with gas without any loss due to light explosions of insufficient power to start the engine. After the preliminary cranking the throttle may be brought back to the normal starting position and the engine started either on the spark or by a quarter-turn of the crank.

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## REVISED REO HAS NEW BODIES

### Otherwise Its Principal Features are Retained and Improved—One and Two Cylinder Models are Unchanged.

There are three different chassis that make up the Reo line as now produced by the Reo Motor Car Co., Lansing, Mich.; and they are much the same as those produced during the past year. The two smaller models, indeed, namely, the single cylinder 10 horsepower runabout and the two cylinder opposed 20 horsepower touring car, are replicas of previous models. The four cylinder 30 horsepower car, however, which is the leader of the line, has undergone some alteration. This is the same car that recently was driven across the continent by L. L. Whitman and his companions in a little over twelve and a half days, breaking all transcontinental records.

In addition to the distinction of being one of the few light touring cars now produced that are equipped with left hand control mechanism, the Reo four possesses a number of other points of favorable distinction. Its motor is of the type that has the inlet valves of very large diameter and mounted in the cylinder heads, while the exhausts are offset at one side. Its cylinder dimensions are 4 by 4½ inches. It has dual ignition, with low tension magneto, coil and batteries; automatic force feed lubrication, with return overflow; and in general accessibility and mounting is well up in its class. The master clutch is of the multiple disc type, the selective sliding gearset is mounted in the frame just back of the clutch, and the drive to the semi-floating rear axle is through a single-jointed propeller shaft housed in a combined torsion tube and radius member.

In working over the design of this model after a full year's service on the road a number of desirable improvements have been introduced. These affect mainly the oiling system, the clutch, propeller shaft, torsion tube and rear axle groups and the front axle.

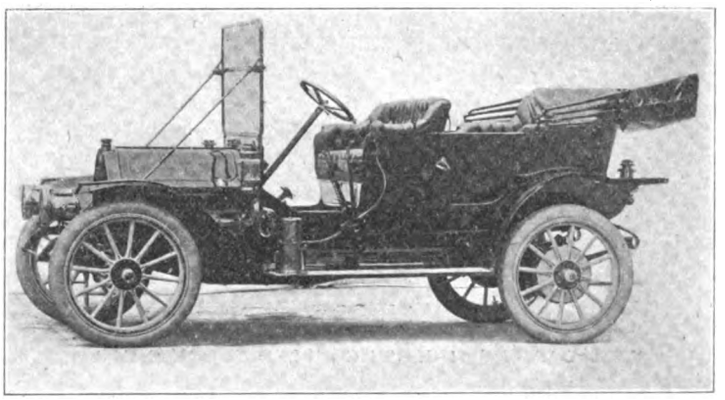
The alteration in the lubricating system has been designed to render it possible to feed a greater amount of oil at low speeds than formerly, while at the same time preventing the water from flooding at high speeds. The new arrangement also permits the use of a heavier grade of oil. Also in connection with the engine, it may be mentioned that the carburetter now is provided with a hot air intake, which fortifies the operator against carburetter troubles in cold weather and also makes it possible to get along comfortably with low grade fuel, if necessary.

With the clutch construction as now employed, it is possible to remove that important organ without in any way disturbing either the motor or the gearset. But it is even more important to note that the number of discs in the clutch has been increased, so that more pliable springs may be used in separating the discs, while the tendency to slippage caused by the accumulation of oil on the plates is provided against. A minor change in its way is the strengthening of the gear-shifting arm which actuates the gearset in effecting the speed changes. Also in the nature of a small but useful change is the adoption of six spring locks to hold the sod pan in position, the result of the innovation being that the housing can be dropped in a couple of minutes without the necessity of getting under the car.

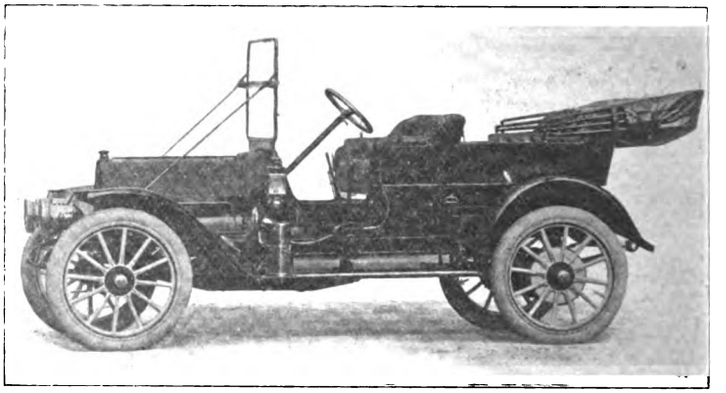
The rear axle bearing equipment is of the Timken roller variety, saving only the two outer bearings, which are of the plain ball type running on hardened steel sleeves and in hardened steel cages. The propeller shaft, which has been materially increased in diameter, also is mounted on Timken bearings. The torsion tube and bevel gear housing likewise have been increased in strength. Another improvement in the construction of the rear axle is the adoption of an oil-retaining device at the extremities of the housing, which make it possible to employ light oil in the gear casing, ensuring thorough lubrication at all times and also preventing any overflow from the end bearings, even when the casing is filled with lubricant.

The front axle spindles have been increased in size, and consequently rendered more reliable. They are mounted with Timken bearings which are provided with a secure locking device to prevent them from loosening accidentally. With the exceptions noted, the construction of this model remains as heretofore.

The accompanying illustrations indicate the neatness and clean-cut appearance of the new bodies. The new model "S" roadster has the same body as the corresponding model of the previous series, while it is mounted on the same chassis as the model "R." The five passenger body is extremely roomy considering the external dimensions, and at the same time so worked out as not to be unduly "chunky" in appearance. The four passenger model gives the effect of the compact close-coupled type of body so much affected by the builders of larger cars, and possesses the same advantage of having its rear seat placed over the axle in such a way as to secure immunity from unpleasant rebound in covering rough roads.



FOUR CYLINDER REO TOURING CAR MODEL "R"



FOUR PASSENGER ROADSTER MODEL "S"

### Requirements of the Radiator Fan.

Radiator fans fulfil an important and at the same time trying function, since by reason of their high speed they are subjected to stresses that are far more severe than would be supposed when the light weight and simplicity of their construction is considered. On this account it is important to see that both the fan and its driving mechanism are kept in good order at all times. The bracket which holds the fan spindle to the forward cylinder must be of ample strength and securely adjusted, the bearing itself must be adjusted in such a way as to prevent undue lost motion, and, above all, the fan blades must be kept in line and, if of the attached variety, firmly secured to the central spider. The penalty of neglecting to keep the fan in condition is almost certain to be a damaged radiator and the amount of injury that can be done when the fan is allowed to get out of condition is out of all proportion to the extent of the fundamental difficulty.

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## OWEN'S NEWEST OFFERINGS

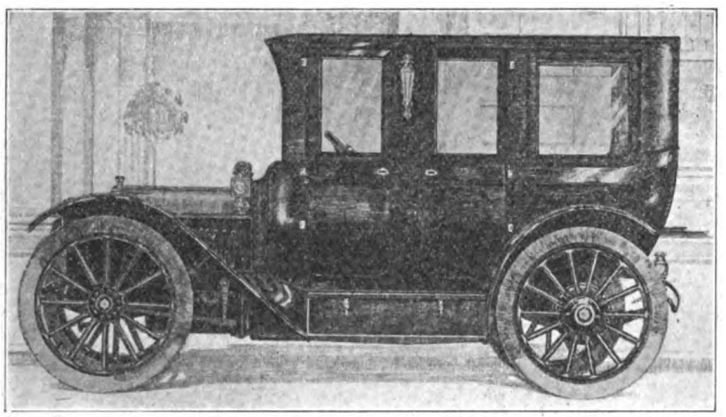
**Sumptuous Six-Passenger Berlin is One of Them—Rumble Roadster with Closed Front is Another.**

After originating what is in many respects a most striking form of automobile it is natural that the Owen Motor Car Co., of Detroit, Mich., should proceed with the construction of other types that are both unusual and progressive. The characterization applies particularly to the new Berlin, which takes the place of the ordinary limousine in the Owen line. If it were not a much older pattern the Berlin well might be termed an outgrowth of the closed front touring car of present popularity. As it is it classes with that form of body very nicely, since it fulfils several of the very purposes for which the closed front has been developed.

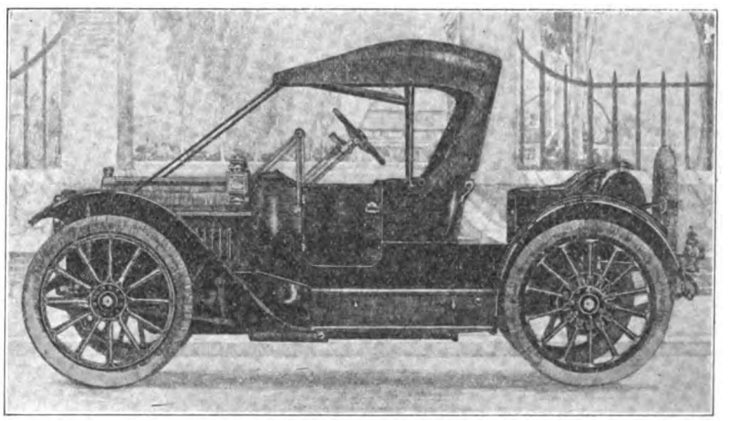
The new Berlin is more than merely a closed front limousine, just as the true flush sided touring body is more than an ordinary touring body with front door equipment. It is designed as a complete car body from end to end, and it thus marks a diversion from the rigid precedents of the carriage makers more or less in the direction of the Pullman type of railway coach. As the accompanying illustration shows, the great length of body enclosure, the flat roof, the three rectangular windows and the absence of prominent mouldings render the appearance of the vehicle decidedly novel.

In appointment the vehicle is quite as striking as in general appearance. The side windows all are arranged to drop into wall pockets, thus rendering the car practically an open one upon occasion. The wind shield is of the vizor type, its upper section opening outward at an angle, while the entire body can be thrown into a single compartment by lowering the glass partition that separates the front and back sections. The equipment is complete in every respect and includes electric dome and corner lights, bouquet holder, toilet and card cases and mirror. Drain strips over the doors protect the entrances from dripping water in wet weather, while antirattling devices prevent the vibration of the window sashes, whether open or closed. In respect to left hand driver's position, central arrangement of the gear shifting lever, long-stroke motor, and details of equipment, the specifications are the same as those for the standard touring car.

In addition to the Berlin body, not a little distinction is added to the Owen line by the adoption of the roadster style, a form of body that may be had with either single or double rumble equipment for the rear, flat back, or with just a hamper in addition to the gasoline tank and spare tire carrier. In this machine, the same general form for the front seat is employed as is used with the touring car, even to the use of side doors. This feature gives the machine a most unusual appearance, and is warranted by the same arguments that led up to the adoption of the closed front touring style. With the double rear rumble, and full equipment, including top and wind shield, the roadster is one of the most radical in appearance yet produced, without at the same time being in the least freakish or extravagant.



NEW OWEN BERLIN SEATING SIX PASSENGERS



NEW ROADSTER MODEL WITH CLOSED FRONT

### Lost Motion in Flexible Couplings.

To obviate difficulties arising from lost motion in the flexible couplings which commonly are introduced into the driving gear of magnetos and water pumps on well made cars, it is possible to introduce a simple form of spring drive at slight expense. In some instances, the spring itself may be made to serve the purpose of the flexible connection, but where an Oldham coupling or universal joint is employed a light spring may be added outside the coupling in such a way that it will take up all slack and prevent the connecting parts from clattering. Besides eliminating a source of noise, this arrangement will do away with certain minute, though occasionally troublesome, uncertainties in the timing when applied to the magneto drive.

## URUGUAY A GROWING MARKET

**American Consul Outlines the Types of Car that Are Wanted—Methods that Will Assist Their Sale.**

The steady increase in the number of importations shows that this is becoming a good market for the sale of automobiles, says Consul Frederic W. Goding, of Montevideo, Uruguay. Although the machines usually purchased have been high priced here, there is a growing demand for cheaper grades of strong and simple construction. American manufacturers who desire to enter this market should build their machines along the following lines:

Voiturette for two persons, arranged with two movable seats behind, two cylinders, 12 horsepower, double ignition of any standard system, two or three speeds, two brakes, water cooled, two kerosene and two acetylene lights; height from the ground to the motor protection box about 14 inches, with a forward projecting top. Price f. o. b. New York, $500 to $800. Tonneau of 25 horsepower, four cylinders, four seats, double ignition of any standard system, three speeds, two brakes, water cooled, light and top over four seats, glass shield in front, normal height, gage of wheels 1.4 meters (55.1 inches). Price f. o. b. New York, $800 to $1,100. Double phaeton (touring car), 25 horsepower, otherwise same as above. Price, $1,000 to $1,400. Coupe for two persons with direction within, special type for physicians, 18 to 25 horsepower. Price reasonable.

The principal requirements are strong construction of all parts, especially the springs and axles; interchangeable pieces in double pairs; simple construction; easy access to all parts of the machine so as to dispense with the services of a chauffeur; certain concessions with liberal terms to agents.

Strong construction is demanded, owing to the rough granite block pavements and 15 per cent. grades. For the voiturette a

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minimum height of 35 centimeters (13.78 inches) is imperative because the country roads are rough, with conditions which debar a low machine. An apron should protect the parts below from water and mud. Complaint has been made as to the quality of the axles and springs in the few American machines that at present are found in use.

A strong inducement for the people here to use American automobiles would be the arrangement to have a full assortment of such parts as are most liable to wear out or break, and to have such parts interchangeable. Should intending purchasers know that their machines would be repaired and broken parts replaced without the necessity of ordering from abroad they would be prompted to decide on buying from such a deposit.

The American machines would have the competition of those made in France, Germany, Italy and Great Britain, which are now well established, and as the experiment of introducing a new make is both tedious and expensive, the risk of such a move should be borne equally by manufacturer and agent. The best plan to pursue to win trade is to perfect satisfactory business arrangements with a reliable firm here and send the first automobile on consignment to be paid for when sold (within a reasonable time), as has been done in a number of instances with success. Should such a plan be followed the agent would push the business, with good chances of of securing a fair percentage of sales for American automobiles in this country in the course of time.

### To Keep Dust Out of Bearings.

Spring oil cups, of the sort such as frequently are employed on the shackles of suspensions and occasionally on the steering linkage of light cars, require to be wiped free of dust before being filled. Otherwise it is practically certain that the lubricant will wash into the bearing a certain amount of grit. It also is important to see that the caps or spring-controlled valves that close the opening under ordinary conditions are in working order, so that they will fulfil their proper function in protecting the bearing surfaces.

## HENRY FORD AND HIS SALES STAFF GATHERED AT DETROIT



Twenty-four of the branch managers of the Ford Motor Co. were gratified to learn last week, during their annual three days' convention in Detroit, that their business for the last year had reached $14,000,000, which amount is exclusive of the transactions of direct dealers. Despite the large total, they guaranteed to exceed that amount the coming year. The morning meetings of the convention were devoted to business, leaving plenty of time for pleasure, of which there was no lack. Luncheon was served the first day at the Hotel Pontchartrain, the second day at the Penobscot Inn, and the third day at the Lone Cabin Inn. Afternoons and evenings were given to an inspection of the new Ford factory, yachting and theatre party and dinners.

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## NEW YORK HAS BUT 56,000 CARS

**Count Made Possible by New Law Proves Disappointing—Number of Chauffeurs, too, Falls Short of Many Estimates.**

According to the returns of the new Callan law, there are 56,000 motor cars in New York state and about 20,000 chauffeurs, these totals being made public by Secretary of State Koenig on Tuesday last, the law now being in full effect.

The number of cars which are thus disclosed to be in use is considerably less than even the conservative estimates. Under the old law, which had been in effect some 10 years, there were 109,000 registrations, and though many of these represented cars that long since were consigned to the scrap heap and many more represented cars which had changed hands, one or more times, it was not anticipated that they accounted for practically 50 per cent. of the total. The number of chauffeurs employed in New York always was grossly exaggerated, and the 20,000 now carried on the state's book will serve to revise many estimates, some of which placed the number as high as 50,000.

The receipts from all sources under the new law have been $325,000, which sum is very disappointing to Secretary Koenig, who reckons that the full year of 1911 will bring in only about $750,000, or about half the annual revenue which he expected would accrue. It also naively is remarked that "the cost of administering the new law is much heavier than was anticipated," which means that after paying the political appointees there will not be much left for road improvement, to which the law requires that the revenue, after paying expenses, be applied.

### Roadside Remedy for Slipping Clutch.

As a temporary, though drastic, remedy for a slipping clutch the leather may be raised off the surface of the metal cone at points between the rivets by inserting match ends or wooden toothpicks beneath it. The hint is applicable in general only where the leather is so worn that thorough cleansing of oil and grease, and even the application of rosin will not cause it to engage properly. It possesses the advantage that it can be applied at the roadside without any further delay than that necessary to lift the floor boards and depress the clutch pedal.

### Freakish Effects of an Accident.

One of the most peculiar accidents to motorists that have happened in some time occurred last week at Richmond, Ind., when Oliver H. Hampton, of Fountain City, was trying to cross the tracks of the Pennsylvania railroad as the "flyer" came through. The automobile which Hampton drove had reached the first rail when the express struck it. The front wheels, engine and hood were ripped off cleanly, and although the car tilted forward Hampton retained his seat while the train whizzed by, a few inches from his face. He was too paralyzed to move, except to grip tightly the sides of the seat, and it probably was that what saved his life.

### Truck that Attacked a Navy Yard.

What damage a five-ton truck can do when it runs wild was demonstrated last Thursday in Brooklyn, N. Y. One of the heavy trucks used by Austin, Nichols & Co., wholesale grocers, and loaded with something like three tons of evaporated apples, was coasting down the long incline on High Street. Suddenly the connection between brake and brake pedal broke and the truck gathered speed. Finding it impossible to stop the heavy machine and seeing it headed straight for the brick wall of the United States Navy Yard, the chauffeur jumped in time to get away from the crash which happened an instant later. The truck went along clear through the three-foot wall, tearing a ragged hole 20 feet wide and brought up against one of the inner buildings of the Navy Yard. The hood of the truck was smashed, but the main body of it and its cargo were unharmed.

### Why Smolowitz Can't Change Name.

Mathias Smolowitz, a Roumanian automobile dealer of 3850 Park avenue, New York City, is having trouble with his name, which he wishes to change to Seeman. Justice Finelite, of the city court, who has a name of his own, denied the application and says Smolowitz must keep his old label, for it is honorable, readily pronounced and easy to spell. Besides Smolowitz is married and has a number of little Smolowitzes.

### White Plains Mixes Cars and Horses.

Spencer Wishart, of New York, again bobbed up conspicuously as an amateur racing man last Saturday, at the wind-up of the annual Westchester County Fair at White Plains, N. Y. He won the 20 miles free-for-all, driving an S. P. O. Thomas Maxwell in a Maxwell captured the 20 miles event, and A. J. Crawford in a Hudson the 10 miles contest. The motor races were so subordinated to the horse trotting that they were almost lost in the shuffle.

### Regal Plugger Begins Long Journey.

In its guise as a "good roads apostle," the Regal "Plugger," with Leo Sherard at the wheel, began its 10,000 miles "All Southern Tour" on Thursday last, 15th inst. It left Norfolk, Va., in a pouring rain but with a large escort.

## HOW PRICES WENT UP AND DOWN

**Statistics Showing that Average Price of Cars Was Highest in 1907—Cause that Contributed to Reduction.**

Based on the records of the sales of gasolene cars manufactured under the Selden patent, the statisticians of the Association of Licensed Automobile Manufacturers have evolved a chart showing the average price of American cars during the past eight years and indicating that from $1,133.37, the average in 1903, the price went up by progressive steps until it reached the top notch, $2,137.56 in 1907. Since that time it has decreased until the first six months of 1910 shows $1,545.93 as the average retail list price of cars, the rise and fall being made apparent by the following tabulation:

| | | |
|---|---|---|
| 1903 | average price | $1,133.37 |
| 1904 | " " | 1,351.45 |
| 1905 | " " | 1,609.79 |
| 1906 | " " | 1,853.93 |
| 1907 | " " | 2,137.56 |
| 1908 | " " | 1,926.94 |
| 1909 | " " | 1,719.93 |
| 1910 | (to July 1st) | 1,545.93 |

The gradual reduction since 1907—the so-called "panic year"—is not the result of any radical reduction in the price, but was brought about by the great increase in the manufacture and sale of machines selling at $1,500 or less. In the early days the production was limited and in 1905, when the industry really began to expand, a car at less than $2,000 was rare, while now the greatest volume of business and the greatest number of machines are sold at less than that figure. There of course has been a tremendous increase in the making of what are termed the moderate priced cars, and a normal and healthy increase in the number of the higher priced machines produced.

The figures, the A. L. A. M. statisticians point out, indicate that the trend in manufacturing has been each year to give more for the same list price, than to make any great cut in the selling figure.

### Book that Deals With Electrics.

There is something essentially domestic about the electric pasenger car; it seems to belong in the same general class with a well-made and useful piece of furniture in points of utility, attractiveness and comfort. The idea is emphasized in the new electric vehicle catalog just issued by the Studebaker Automobile Co., South Bend, Ind. The booklet, which is beautifully printed and illustrated, enlarges upon the broad usefulness of the electric besides adding a word as to the skill and experience of the Studebaker designers in producing suitable types. Model "17," the

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leader of the line, it is explained, is built with independent chassis so that it is adaptable to a variety of bodies, all of which are constructed on the interchangeable plan. A chapter also is devoted to the subject of home charging with the aid of the alternating current rectifier.

### Concerning the Knox Commercials.

For the benefit of those who are interested in the problem of motor truckage and in the utility type of motor vehicle, whatever its specific application, the Knox Automobile Co., Springfield, Mass., has printed a 40-page commercial vehicle catalog that contains a large amount of useful information condensed within a relatively small amount of space. Besides enunciating briefly and forcefully the principles that are recognized as governing the commercial vehicle problem, the substantial mechanical construction of the Knox trucks is explained and illustrated as are the specifications and applications of a surprisingly large number of types suitable for municipal uses in fire, police and hospital service, trucking in all its forms and also for the purposes of omnibuses and sightseeing wagons.

"The A B C of Electricity." Price, 50c. The Motor World Publishing Co., 154 Nassau street, New York City.

## THE MEN WHO MAKE THE MARKET FOR HARTFORD TIRES



HARTFORD RUBBER WORKS CO.'S STAFF PRESENT AT ANNUAL CONFERENCE

1, J. D. Anderson, President; 2, H. E. Field, Vice-President; 3, E. R. Benson, Secretary; 4, J. P. Krogh, Treasurer; 5, C. B. Whittelsey, Superintendent; 6, D. W. Pinney, Assistant Treasurer; 7, F. Kesser; 8, G. R. Noble, Chicago Branch; 9; S. N. Keller, Buffalo Branch; 10, H. C. Severance, Manager, Detroit Branch; 11, P. H. Goodall, Manager, Cleveland Branch; 12, H. B. McIntosh, Cleveland Branch; 13, C. Towne, Hartford; 14, J. R. Hoffman, Philadelphia Branch; 15, H. E. Smith, Chicago Branch; 16, E. L. Duffee, Philadelphia Branch; 17, E. S. Roe, Manager, New York Branch; 18, E. S. Edwards, Connecticut; 19, L. C. Havener, Boston Branch; 20, M. C. Stokes, Motorcycle Department; 21, H. V. Koons, Philadelphia Branch; 22, W. R. Brown, New York Branch; 23, E. H. Fahy, New York Branch; 24, E. H. Johansen, Philadelphia Branch; 25, A. D. Cruden, New York Branch; 26, L. Frohock, Boston Branch; 27, R. M. Barrett, Buffalo Branch; 30, A. R. Martel, Solid Motor Tire Department; 31, Garfield List, Philadelphia Branch; 32, W. R. Barnes, Manager, Philadelphia Branch; 33, J. J. Tompkins, Detroit Branch; 34, G. D. Niles, Boston Branch; 35, T. McClurg, Cleveland Branch; 36, C. Clark, Automobile Department; 37, O. S. Johnson, Manager, Buffalo Branch; 38, P. B. Simmons, Chicago Branch; 39, A. W. Clark, Chicago Branch; 40, A. W. Kirk, Manager, Atlanta Branch; 41, W. T. Powell, Manager, Chicago Branch; 42, G. S. Hulings; 43, Chase Langmaid, Manager, Boston Branch; 44, G. H. Wright, Chicago Branch; 45, James Morgan, Connecticut; 46, H. P. Snyder, New York Branch; 47, W. H. Reed, Solid Motor Tire Department.

Business and pleasure were agreeably combined last week when the branch managers and salesmen of the Hartford Rubber Works Co. held their annual conference at the factory in that city. It occupied three days and opened with an address by J. D. Anderson, the president, after which two sections were formed for sessions, the branch managers meeting with the executive officers, while the salesmen used the factory dining room for a convention hall, along with the heads of departments. The manufacturing processes were shown to the visitors, who had their first opportunity to see aeroplane tires in the making, as well as those for automobiles and bicycles. A dinner for the party was given the first evening at one of the local hotels. Business sessions also occupied the second day, while the third was devoted to an outing and dinner at Morris Cove. The trip was made by automobiles, which were equipped, of course, with Hartford tires.

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## MOTOR WAGONS FOR NEWSPAPERS

**Typical Service Rendered by One of Them in Baltimore—Long Hours and High Speeds Necessary.**

What service a motor wagon can render to a newspaper is well illustrated by the case of the Baltimore Sun, which since June 1st has used a White 1500 pound delivery wagon for the delivery of papers to the sub-stations in the suburbs of that Maryland city.

In handling the early edition of the paper, the White truck is in service from




WHITE DELIVERY WAGON IN THE SERVICE OF A BALTIMORE NEWSPAPER

1:00 to 8:00 o'clock in the morning during the seven days of the week, while in conveying the afternoon papers to their various destinations the truck works from 2:00 o'clock in the afternoon until 8:00 or 10:00 o'clock at night, with the exception of Sunday only.

In this car, deliveries are made to substations and carriers in the city and suburbs, and the mail is delivered to and from the postoffice. The machine is in daily service from 14 to 16 hours.

"Conservatively speaking," says J. W. Magers, circulation manager of the Sun, "the car does the work of two teams on short hauls and would displace three teams on long hauls—by long hauls we mean those that would exceed eight city blocks. The service this car has given has been a pleasant surprise to us and the more so that we haven't had any trouble at all as yet, and we have been giving it considerably harder service than we had anticipated. Even the editorial department has found it of service on a couple of occasions in making rush runs to fires at night."

During the eight morning trips the truck has run as high as 40 miles an hour, while it generally makes the excellent average of 25 miles an hour during the day. This mileage is exceedingly good considering that there are few cities in the country with streets so hilly and so hard on tires as those in the city of Baltimore. The truck has averaged 12 miles to the gallon of gasolene. There have been no repairs necessary during the first two and one-half months of service.

### Hearst Promoting Chain of "Truck Tests."

Following the example of the Philadelphia North American in arranging a commercial vehicle test from the Quaker City to Atlantic City and return, William Randolph Hearst has determined to take enough respite from politics to conduct a series of similar affairs in the several cities where his newspapers are more or less assisting in the moral uplift of the masses. The first affair of the sort, which was announced several weeks since, and which will be given under the auspices of the Boston American, October 14-15, from the Hub to Newburyport and return, 65 miles, will be followed by a similar stunt in New York. The New York American will stand sponsor. As Hearst's papers in Chicago and Los Angeles have discovered that there is a "yearning" or "demand" on the part of the business men of those cities, it is evident that "truck tests" shortly will be announced in those localities.

### Carrying Oil Cans Under the Hood.

It is a simple and wise plan to instal a little tray adapted to receive and retain two or three oil cans in an out-of-the-way corner underneath the hood. Some manufacturers take pains to see that their cars are so provided in the beginning, but in cases where the point has been overlooked by the builder it is possible to fit up a suitable tray at small cost. The particular advantages are that the oilers always are close at hand when needed, that the oils are kept warm in winter, that the cans are protected from injury and that there is no risk of their spilling the lubricant over tools and equipment in the kit.

## TOURING TEST FOR ELECTRICS

**Two of Them Being Piloted Over 1,000 Miles of Much Mixed Going—Edison Battery Involved.**

While the electric vehicle ordinarily is not accepted as suitable for touring purposes, two machines of this class at present are being put through an extensive test that constitutes the most ambitious so far undertaken in the long series connected with the exploitation of the new Edison battery. The two machines, one a Bailey and the other a Detroit, each of which is equipped with a 40-cell nickel-iron battery, are covering the route of the so-called Ideal tour through the New England states. Twelve days have been allowed to complete the test, and to equalize the effect of the grades, the two machines are being sent over the 1,000 miles course in opposite directions.

The Bailey, driven by G. W. Langdon, F. V. McGuiness acting as observer, left New York last Saturday morning, 18th going by way of Waterbury, Lenox, Manchester and Bretton Woods to the Maine coast, and thence back to New York. The Detroit, which is being driven by R. E. Darling, with E. R. Alexander as observer, is running by way of Briarcliff, Hartford, Springfield, Worcester and Boston. The schedule laid down calls for at least 100 miles a day over the medium dirt roads, of which there are many miles outside the state and city boulevard stretches, while, to make up for delays in climbing the Franconia Notch, in the White Mountains, and the difficult Peru mountain in the Green Mountain range of Vermont, the better roads must be taken at the rate of 150 miles a day.

One of the most notable in the series of Edison tests was a run of 201.6 miles on a single charge, which was made in the vicinity of Cleveland, Ohio, on August 30th. In making this long-distance run, which is called a record for a single charge, an average speed of 12¾ miles an hour was maintained.

### Safety Loops for Shaft Driven Cars.

All shaft driven cars should be provided with safety loops to prevent the torsion rod or tube and the driving shaft from dropping to the ground in the event of a broken connection or a disconnected coupling. The device is one that is simply and cheaply applied and that may save the overturning of the car in the event of an otherwise minor and improbable mishap. Owners of such cars as are not already equipped in this way by a thoughtful manufacturer may instal the arrangement without difficulty. It constitutes an efficient accident insurance in itself.

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**Hudson Owners Get Cash Prizes.**

In competition with 485 other Hudson owners, A. P. Pearson, Dorchester, Mass., has been awarded first prize, $150, by the Hudson Motor Car Co., Detroit, Mich., for the best story and photographs in the Hudson "experience run," held July 15-16. The contest was open to Hudson owners throughout the country, and prizes of a total value of $950 were offered for the most unique photographs and stories of runs sent in. Four hundred and eighty-six cars, 18 of them driven by women, took part in the contest, and covered on an average 150 miles each. One of the conditions of the contest was that no tools be carried. None of the 18 women contestants won prizes, but as balm for their disappointment each received a cash bonus of $25.

Next to Pearson, the five highest prize winners were the following: Second, $100, R. W. Hyde, Duluth, Minn.; third, $50, J. M. Heffner, Mason City, Ia.; fourth, $25, William Kemble, Kingston, N. Y.; fifth, $20, A. P. Perry, McIntosh, Wash.; sixth, $15, E. L. Jelks, Quitman, Ga.

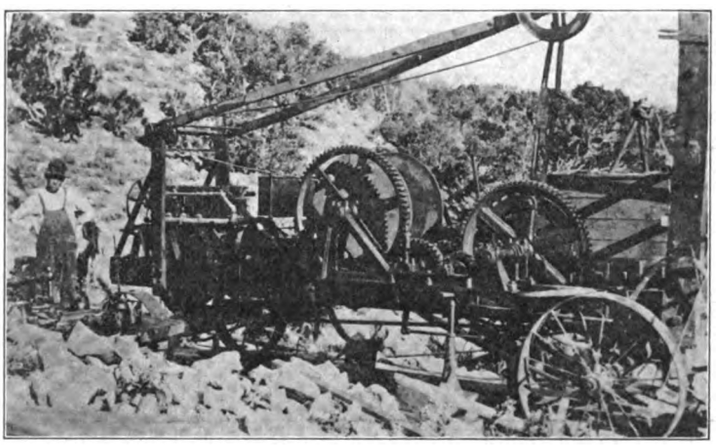
Fourteen prizes of $10 each were distributed among the following: H. Brewster Willis, New Brunswick, N. J.; W. B. Dobson, Alpena, Mich.; A. F. Boylan, Dennison, Ia.; G. W. Schwarzwalder, Chichester, N. Y.; John Johnson, Chappell, Neb.; P. H. Combes, 3685 Olive street, St. Louis, Mo.; T. W. Brotherton, Jr., 4501 Finley avenue, Los Angeles, Cal.; E. Hoen, Fresno, Cal.; R. W. Peterson, 431 College avenue, Santa Rosa, Cal.; A. W. Wall, Walpole, Mass.; Donald McFadon, 511 Savage Schofield building, Tacoma, Wash.; Dr. F. J. Harter, Herkimer, N. Y.; Thomas M. Purves, Anthon, Ia.; G. M. Jones, 428 Washington street, Atlanta, Ga.

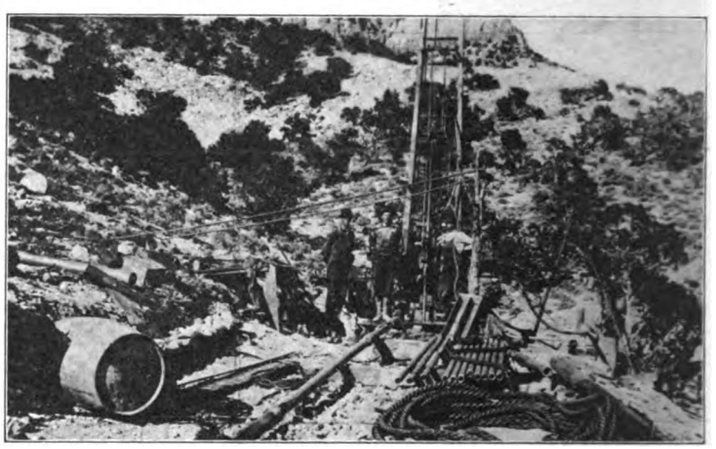
**Predicts Abandonment of Oiled Roads.**

Spencer Miller gave a talk last week before the New England Society of Orange, N. J., during which he declared that it will not be long before the towns and cities of the United States which have been using oil to lay the dust on rural highways will wish they had never done it. He said the oil kills the lawns and foliage along the sides of the highways where it has been used. "In Europe," he added, "the evil effects of using the oil are already sadly apparent. The oil-laden dust is picked up by the automobiles and scattered to the foliage and lawns, which it will kill."

**Uses Automobile Motor to Drill Well.**

That a continuous circulating air current is not absolutely necessary to make a Franklin air-cooled motor perform its work satisfactorily, even in a temperature which occasionally reaches 135 degrees Fahrenheit, has been discovered by John R. Steele, at New House, Utah. The latter, who is an engineer in charge of oil-drilling operations at New House, was in a quandary as to what machinery to use for the drilling.





HOW AN AUTOMOBILE ENGINE WAS USED FOR DRILLING AN OIL WELL IN UTAH

Light weight was imperative on the high mountains, and, as can be seen in the accompanying illustration, a six cylinder model 1907 automobile motor was chosen for the work. With the engine the transmission is used because of the difference in the speed and power required. The capacity of the drill, using core tools, is 800 feet with a six-inch core, and with churn tools a 12-inch hole may be driven to a depth of 400 feet. The ignition is by magneto, and the necessary flexibility of the engine is obtained by means of the change gear.

**Horsemen, as Usual, Object to Lamps.**

Wholesale protests are being made by team owners and drivers to the commissioners of the District of Columbia, who have determined that lights must be carried on all vehicles. The principal objections seem to be over the expense of the lamps and oil. The horse interests, however, used a good deal of ingenuity in bringing up odd possibilities. Among other things they asked how they could hang a lamp on a load of hay, or at the rear of a dump cart. Nor was the danger of a lamp on a load of theatrical scenery forgotten. Figures presented showed, however, that twice as many accidents from collision fell on the horse-drawn vehicles as upon automobiles.

**Use Guns to Check Highway Improvement.**

Road building operations on the Hudson road, under the direction of the Automobile Club of St. Paul, received a severe jolt a few days ago, when a score of residents of the village of Oakdale, Washington county, Minnesota, took exception to the way the work was being done and resorted to shotguns to stop it. The club is now threatened with a civil suit for $200 damages. That is the amount which the citizens declare will be necessary to expend in order to put the highway into the condition it was before the club began work.

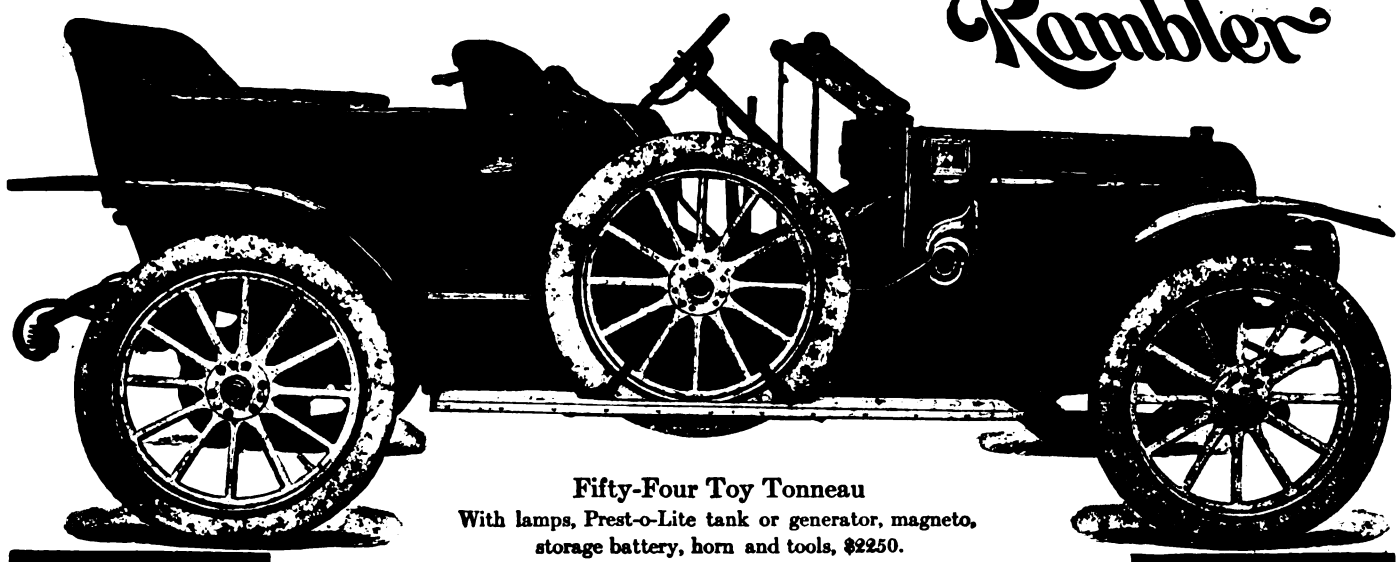
The Hudson road is the most direct route to the Anchorage, the country home of the automobile club, located on Lake St. Croix. Early this season club officials hinted to Washington county officials that unless the road to club house was improved the club would be forced to seek another location, owing to the fact that the bad roads were keeping members away from the resort. The officials took the tip and at once ordered farmers along the highway to work out their road taxes. To help the movement the commissioners put a grader on the road, which proceeded to scrape the sod off the sides and put it in the middle of the thoroughfare. In due time the weeds began to grow in the middle of the road. They thrived on the turf which had been placed there by the grader. The automobiles had to take the sides of the road, and owing to the grade made for drainage the machines often traveled at perilous angles. Accordingly the club took a hand at making improvements on its own account, under the recommendation of the state highway commissioner, who was pleased with the progress made, if his constituents were not.

**Michigan Motorists Form a Club.**

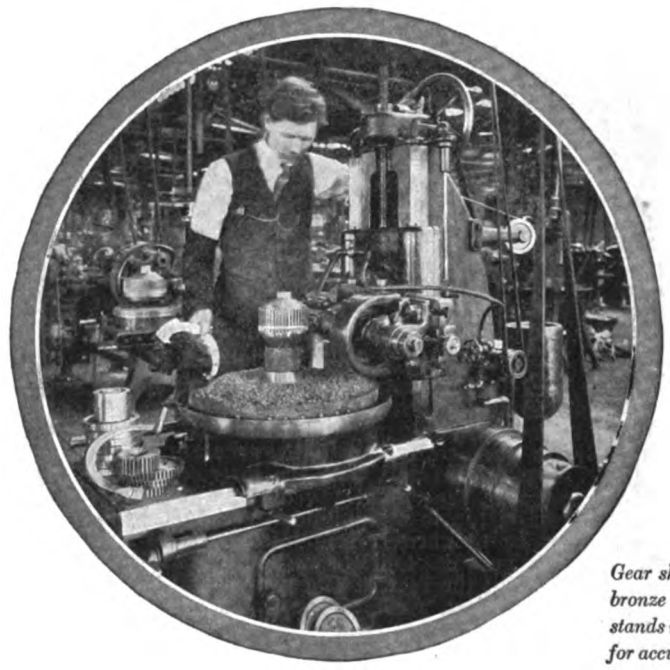
Thirty-five motorists of Ludington, Mich., have formed the Mason County Automobile Association and elected A. A. Keiser president. The other officers are: W. L. Hammond, secretary, and J. D. Hogstraat and J. F. Rohra, members of the executive committee.

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## RECENT PATENTS.

966,510. Brace for Auxiliary Vehicle Springs. William Young, St. Louis, Mo., assignor to Supplementary Spiral Spring Company, St. Louis, Mo., a Corporation of Missouri. Filed March 1, 1909. Serial No 480,619.

1. In a device of the character described, the combination of a vehicle body, a main spring of the leaf variety, an auxiliary spring of the helical type, a brace attached to a brace point, and means for attaching said brace to said helical spring consisting in a forked end for said brace and a bolt passing through eyes in said fork and said helical spring, one prong of said fork lying adjacent to one side of said helical spring and the other prong thereof lying adjacent the other side of said helical spring.

966,519. Motor Vehicle. Alanson P. Brush, Detroit, Mich. Filed Nov. 18, 1908. Serial No. 463,149.

In an automobile, the combination of a frame, a motor fixed to the front end thereof, a longitudinally extended main shaft driven by said motor, a rear axle structure which includes a casing having a forwardly extended tubular torque member which is removably connected with the differential gear casing of the rear axle structure and is enlarged near its front end, transmission controlling mechanism mounted in said enlargement, and two transmission shafts mounted in said torque member and adapted to be variously connected by said controlling mehchanism, one of said shafts being operatively connected with the rotating mechanism of the rear axle structure and the other of said shafts having a telescoping universal joint connection with the main shaft.

966,586. Automobile Front Axle with Drive. Andrew O. Nordquist, Axel R. Nordquist, and Carl W. Nordquist, Minneapolis, Minn. Filed June 2, 1909. Serial No. 499,656.

1. The combination with an axle and a sprocket wheel loosely mounted thereon, of a clutch slidably mounted on the axle, a steering knuckle, a shifting collar for said clutch, means connecting the collar and the knuckle, and means for shifting the support of the collar, as and for the purpose set forth.

966,674. Elastic Vehicle Tire. William H. Eynon, Cleveland, Ohio. Filed Aug. 14, 1909. Serial No. 512,826.

1. An electric vehicle tire, comprising a tire body terminating in laterally extending tapered tread portions terminating in relatively thin tread wings projecting beyond the sides of said tire body.

966,722. Brake for Road Vehicles. William Herbert Weight, Bishopton, Bristol, England. Filed Dec. 15, 1909. Serial No. 533,182.

1. In a hydraulic brake system for road vehicles the combination with a brake ram cylinder carried by steering wheel of a vehicle, and a main pressure device, of a resilient tube connected at opposite ends to said cylinder and pressure device and a swivel joint interposed in the length of said tubing and alined with the pivotal axis of the steering wheel.

966,785. Automobile Wind Shield. Frank W. Aurig, Philadelphia, Pa., assignor to Thomas S. Shibe, Philadelphia, Pa. Filed Feb. 19, 1910. Serial No. 544,743.

1. In a wind shield, a sash, a movable frame swinging thereabout, clamp members upon the sash and comprising concentric grooves and ribs and co-operating clamp members comprising concentric ribs and grooves interfitting with the members upon the sash and having the taper upon one side only.

966,864. Pneumatic Supporting Means. Gustaf von Schantz, New Britain, Conn. Filed Mar. 24, 1910. Serial No. 551,273.

1. An apparatus of the class described, comprising a pneumatic support having two relatively movable members, a low pressure tank in communication with said support, a check valve between said low pressure tank and support and closable toward said low pressure tank, a high pressure tank in communication with said support, and a check valve between said high pressure tank and support and closable away from said high pressure tank.

966,874. Charging Device for Pneumatic Tires. Fred O. Warrick, Nuremberg, Germany. Filed March 9, 1909. Serial No. 482,323.

A valve comprising a valve casing, a ball valve therein, an insertion piece in said casing extending from the bottom of the casing to a point adjacent the valve seat, said insertion piece dividing the bore of the valve into channels so that the air current passing through the valve is set in a whirling motion, said whirling motion turning the ball valve and cleaning the same from adhering dust particles.

966,972. Internal Combustion Engine. Sigurd Wiebe, New York, N. Y., assignor of one-half to John C. Quinn, Philadelphia, Pa. Filed Oct. 2, 1905. Serial No. 280,888.

1. In an internal combustion engine, the combination with a working cylinder provided with two annular chambers concentric therewith, and with separate inlets from said chambers to the interior of said cylinder, the one arranged above the other, of a piston in said cylinder, arranged in its stroke to uncover said inlets, one of said chambers communicating with the said cylinder at the rear of said piston, and having an air inlet, a charging cylinder and piston communicating with the other of said chambers, and a mechanically controlled exhaust for the working cylinder.

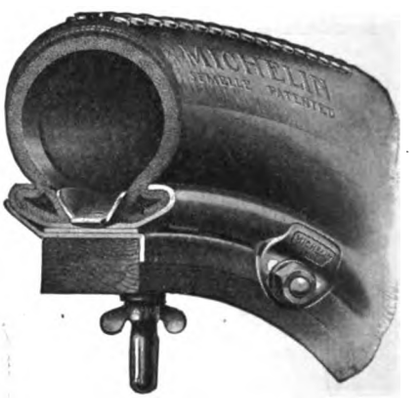
966,993. Detachable Wheel Rim. Thomas W. Broomell, York, Pa., assignor of one-third to George A. Lichtenberger and one-third to Charles H. Bear, York, Pa. Filed Nov. 28, 1908. Serial No. 464,952.

In a wheel, the combination of a felly having opposed square ends entirely sep-

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arated by an intervening space which forms a gap extending radially throughout the thickness of the felly, a hoop surrounding and secured on the felly and having an inwardly depressed portion disposed longitudinally in said gap and extending radially throughout the thickness of the felly and also having the ends of said inwardly depressed portion arranged at right angles to the felly and abutting against the similarly arranged or square felly ends throughout the thickness of the felly, whereby said inwardly depressed portion virtually forms a segment of the felly, a split rim provided with means for holding it against lateral movement on the hoop and also provided with means for engaging a tire, oppositely-threaded lugs fixed to the end portions of the rim and disposed and movable toward and from each other in the said inwardly depressed portion of the hoop and longitudinally in said depressed portion and having oppositely-threaded portions engaging the threaded lugs of the rim.


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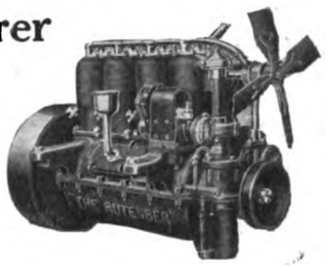
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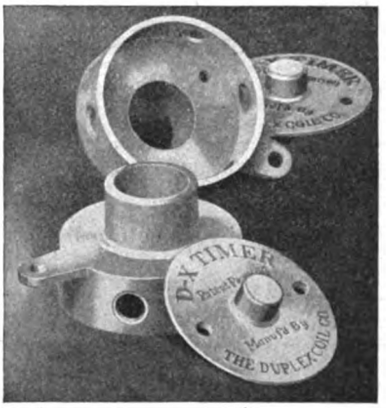
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The Bush Radiator
THE BUSH MANUFACTURING CO.
HARTFORD, CONN.

BY THE COMPANY IT KEEPS
That's a good way to judge the Warner Auto-Meter. You'll see it on the cars of quality everywhere; you'll find it used universally by motorists of experience.
And when a manufacturer furnishes it as part of his regular equipment, at three times the cost of an ordinary instrument, it's pretty good evidence of the quality of his car.
WARNER INSTRUMENT CO.
998 Wheeler Ave. BELOIT, WIS.

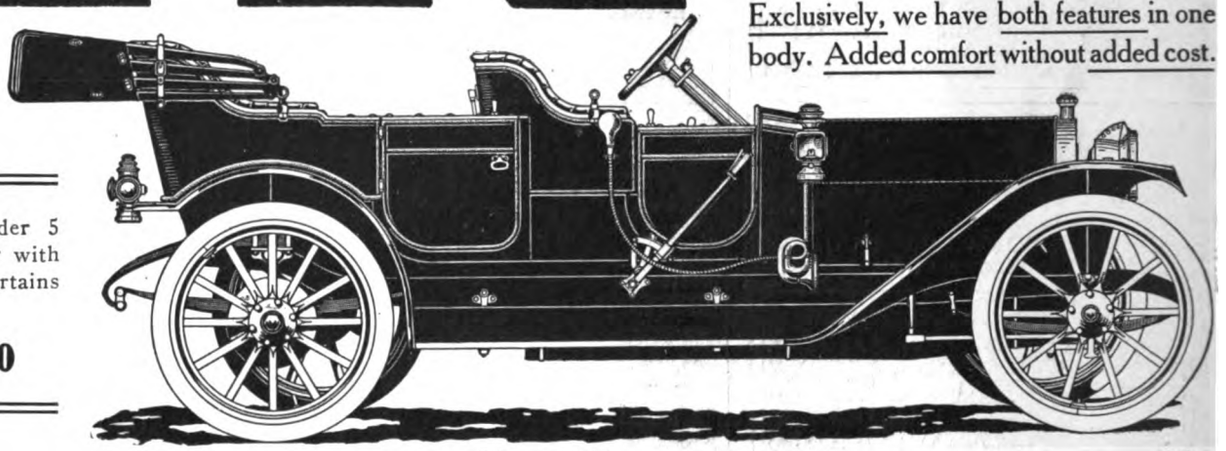
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# KLINE KAR 1911

**Closed Front During Cold Weather. Open Front During Warm Weather.**

Exclusively, we have both features in one body. Added comfort without added cost.

**Fore-Door Models are in demand. They add class and comfort.**



Model 6-50 Six Cylinder 5 Passenger Touring Car with Mohair Top, Side Curtains and Dust Boot.

**Price $2700**

**1911 Series**

| Model. | Price. |
|---|---|
| 4-30—4 cylinder, five passenger Touring Car complete with Top, Size of Motor, 4-in. Bore, 4½-in Stroke | $1,675.00 |
| Toy Tonneau, complete with Top | 1,675.00 |
| Runabout, complete with Top | 1,625.00 |
| 4-40—4 cylinder, four passenger Touring Car complete with Top. Size of Motor, 4¼ x 5½ | $2,250.00 |
| Toy Tonneau, complete with Top | 2,250.00 |
| Runabout, complete with deck and tank on rear | 2,200.00 |
| 6-50—6 cylinder, five passenger Touring Car complete with Top. Size of Motor, 4 3-32 x 5 | $2,700.00 |
| Toy Tonneau, complete with Top | 2,700.00 |
| Runabout or Meteor, two passenger | 2,650.00 |
| 6-60—6 cylinder, seven passenger Touring Car complete with Top and demountable rims. Size of Motor, 4½ x 5½ | $3,250.00 |
| Runabout or Meteor, two passenger | 2,950.00 |

We build Limousine bodies for the above chassis.

**B C K MOTOR CAR CO., York, Pa.**

# THE DeTAMBLE The Quick-Selling Line

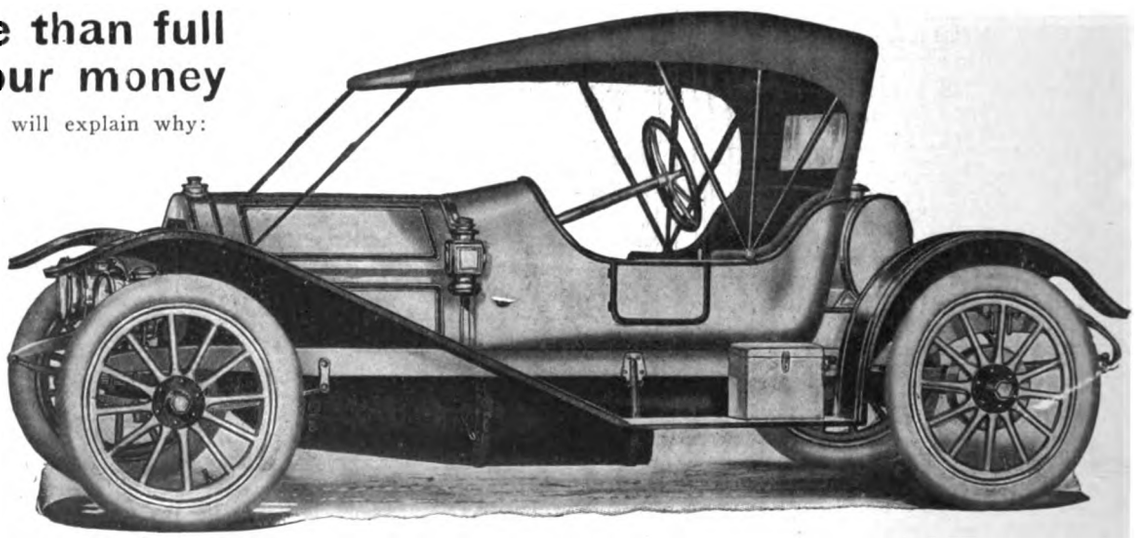
## A little more than full value for your money

The following reasons will explain why:

**MODEL "G" DeTAMBLE SPECIAL**

36 H. P. Unit power plant. Three speed selective type sliding gear transmission. 112 in. Wheel Base. 34x3½ in. tires. Magneto dual system ignition. Full lamp equipment.

**Can You Beat It Under $1500?**



The same specifications apply on the five-passenger touring cars except the wheel base is 115 in.

**Model "H" Standard Five-Passenger Touring Car $1150**

**Model "J" Five-Passenger Fore Door Touring Car $1200**

GOOD TERRITORY STILL OPEN.

**THE DeTAMBLE MOTORS CO., Anderson, Ind.**


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# SIMMS MAGNETOS

## What They Mean to You

SINCE the first days of magneto ignition for gas engines, the name Simms has stood for Quality, Efficiency and Reliability in magneto construction. It is a guarantee of superiority in the selection of materials and the manufacture, assembling and testing of each part. Every magneto is made to do the work for which it is designed and thoroughly proven before delivery.

SIMMS Magnetos are made in types to meet every requirement—automobiles, commercial trucks, aeroplanes, motorcycles, motor boats, stationary gas engines—and are superior to all others. Our new Series L Booklet telling the story of this superiority in brief will be mailed on request. Write NOW.

*Prompt Deliveries*

SIMMS [TRADE MARK] QUALITY EFFICIENCY RELIABILITY

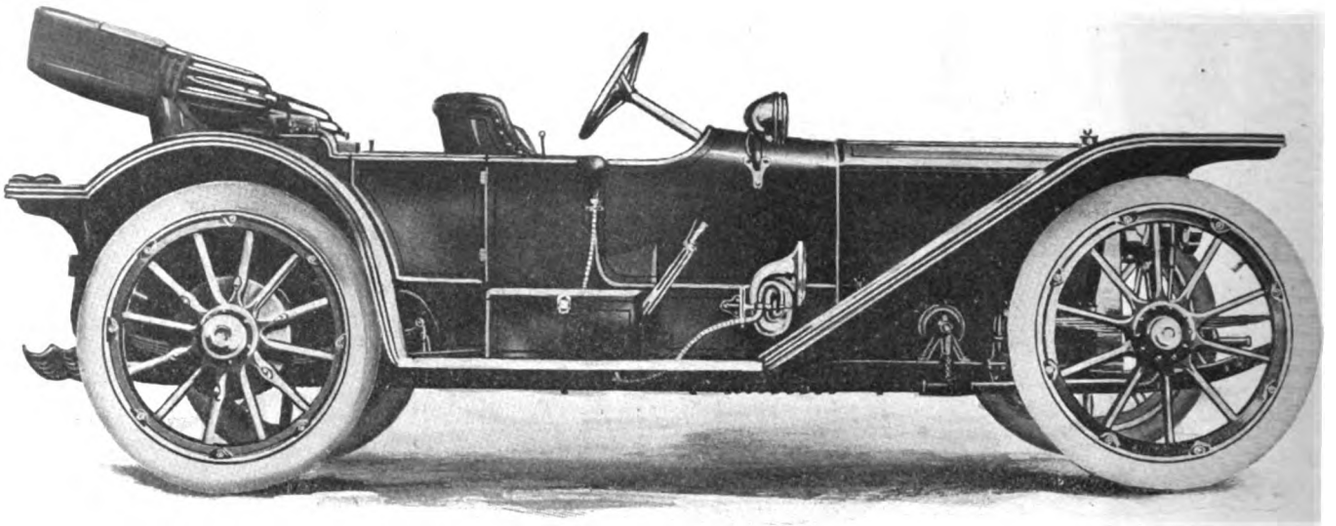
**THE SIMMS MAGNETO CO.**

1780 BROADWAY, NEW YORK CITY

London Representative
Simms Magneto Co., Ltd.

Paris Representative
Cie des Magnetos Simms


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**The Traveler-Underslung Frame, 40-Inch Wheels; 4 Cylinders; 50 H. P. $4,250**

# THE AMERICAN

## A Car for the Discriminating Few

# The Wise Dealer Will Read and Act

The country's largest cities have, to date, virtually absorbed all the AMERICANS we have been able to build.

Even with our increased output for 1911, these same cities could easily continue this process, without exhausting the high class type of owner to whom this highest class type of car appeals.

But we have decided to nationalize AMERICAN cars in the broadest sense possible, by selecting certain other cities at widely separated points.

We don't in the least care where or what those cities are, because there is not one city of any importance from which we have not received inquiries and tentative orders.

Wherever there are discriminating folk there are prospective purchasers who will see in the AMERICAN the handsomest, the best, and above all, the safest car in the world.

**WE ARE NOW DECIDING UPON THE CITIES TO WHICH WE SHALL MAKE 1911 ALLOTMENT. YOU MUST ACT AT ONCE IF YOU WANT CONSIDERATION**

## AMERICAN MOTOR CAR CO., Dept. "Y" Indianapolis, Ind.

Licensed under Selden patent.

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# BOSCH PLUGS

**As Reliable as Bosch Magnetos**

# $1.00

**$10.80 the Dozen**
**In All Standard Threads**

**Write for our "Facts About Bosch Plugs for Magnetos and Battery."**

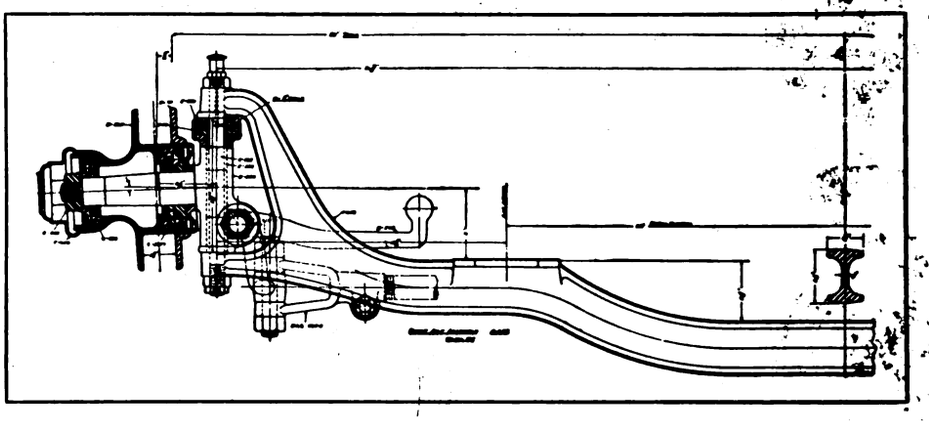
## BOSCH MAGNETO COMPANY

**223-225 West 46th Street, New York**
**SAN FRANCISCO: 357 Van Ness Avenue**
**CHICAGO: 119-121 East 24th Street**
**DETROIT: 878 Woodward Avenue**

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# THE McCUE AXLES

HAVE you seen our one piece steel axle housing? It is unlike any other. It is made right, looks right and is right.



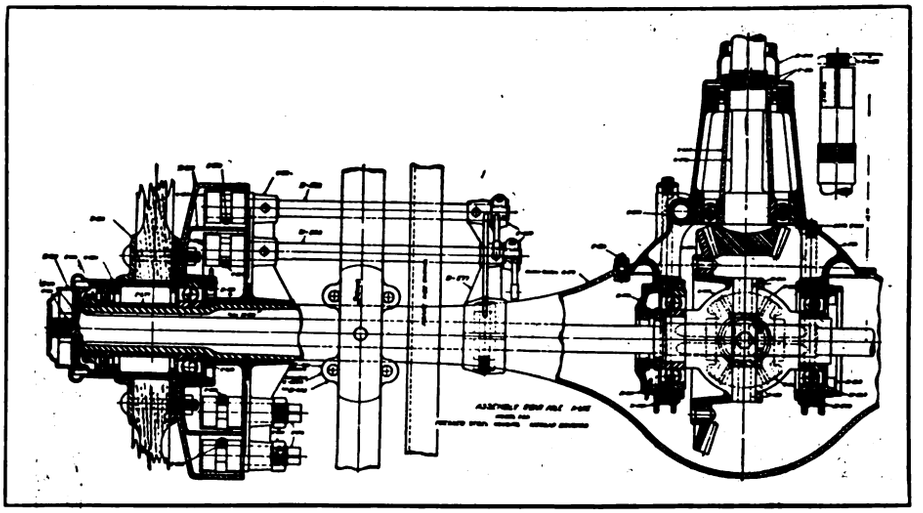
The McCue axles cost more than any others but they are worth more. Every little detail has been looked after from a car-builder's standpoint.

They have real brakes which are easily and quickly adjusted.

The drum bearing surfaces of the flanges are accurately machined. The flange bearing surfaces of the drums are likewise machined making a true running wheel possible, also permitting the use of various widths of spokes.

The pinion shaft and pinion gear are integral and are made of 3½ per cent. nickle steel.

The bearings are imported annulars and of sufficient sizes to carry the load for the weight of car for which the axles are intended with a factor of safety of ten.



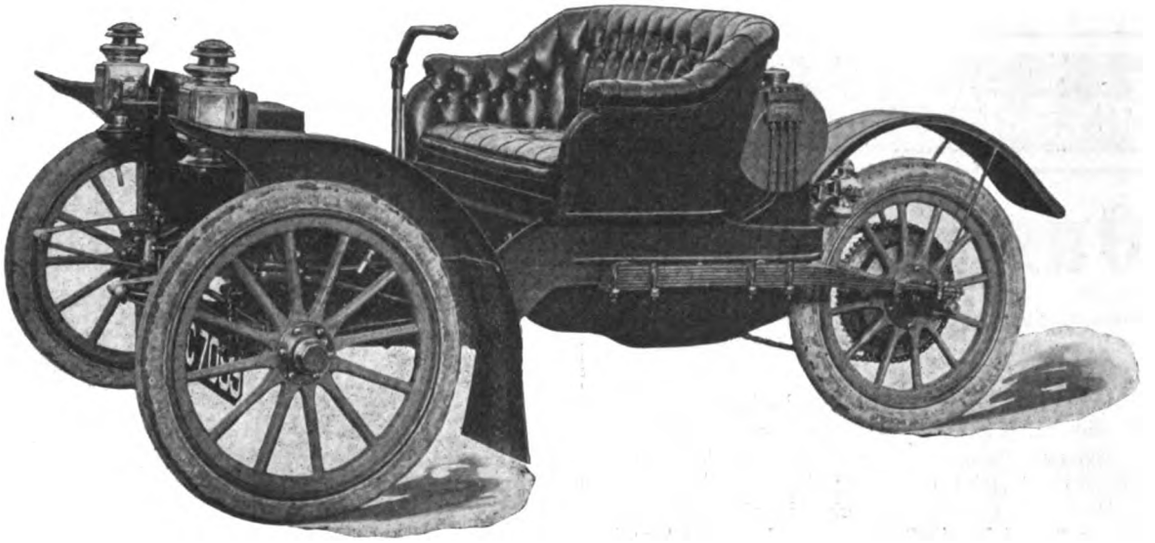
These bearings have been tested out with 100 per cent. overload for 110,000 miles and were in good usable condition at the end of the test.

We have both Mercedes and Elliott types of front axles. Let us tell you all about them. Prints and catalogues upon application.

## THE McCUE COMPANY

**Hartford, Conn.**


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# MOTORETTE

## Highest development of the motorcycle

Seats two, side by side, in a roomy, comfortable seat.

Quiet, easy running; good on hills and bad roads. Strong, durable, light in weight and handsome in design.

**Motor**—2 cylinder, double opposed high duty motorcycle type, 7 H. P.—A. L. A. M. rating.

**Brakes**—Emergency brake mounted on transmission. Service brake mounted on rear wheel.

**Springs**—Special Motorette design—same steel as in Packard, Pierce, etc.

**Bearing**—Timken bearings in rear wheel—adjustable ball bearings in front wheels.

I beam front axle; 2-speed and reverse planetary transmission. Circulating oiling system. Handsome metal body.

Light weight. Speed 25 miles per hour. Guaranteed for one year.

Price $385 F. O. B. Hartford, Connecticut.

We have an immensely attractive proposition for dealers. Write today for full particulars.

## C. W. Kelsey Manufacturing Company

**Hartford, Connecticut**

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# WE WANT YOU TO TRY

## CONNECTICUT Shock Absorbers

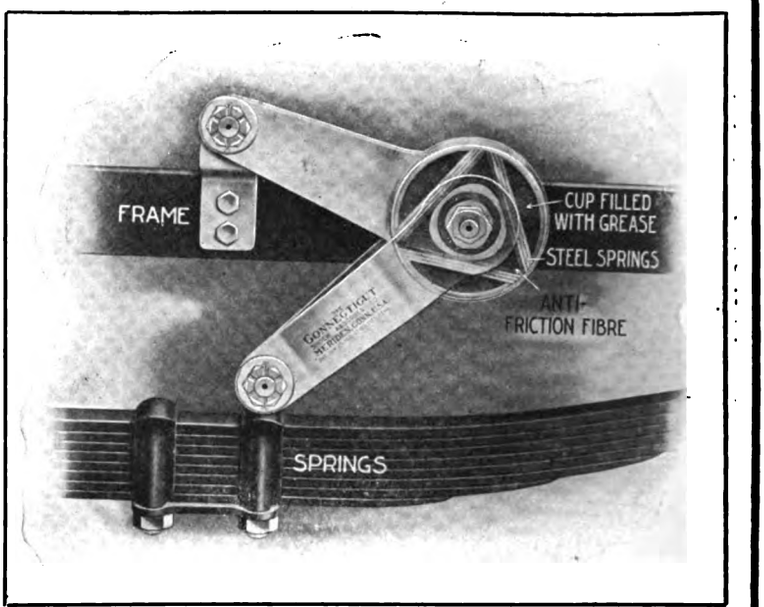
## At Our Expense

**We are so sure of the exceptional merit of our Absorbers that we are willing to have you try them for ten days at our expense.**

The purpose of this offer is to demonstrate by actual, every-day use the remarkable efficiency of Connecticut Shock Absorbers. We want the privilege of proving our claim that every car becomes a "parlor car" over the roughest roads when equipped with Connecticut Shock Absorbers. Write us regarding our "special offer," stating make, model and year of your car; also, whether Touring, Baby Tonneau, Runabout or Limousine body.

UNITED STANDARD EQUIPMENT MANUFACTURERS — WE PROTECT THE DEALER & THE OWNER AND THE

**Connecticut Shock Absorber Dept.**
**United Manufacturers**
**250 West 54th Street** **New York**




Regal "30"

**"The Ideal Car for all Purposes"**

**The only $1250 car with a record of three years of success behind it**

**$1250**

**Runabout, Baby Tonneau, Touring Car, Coupe**

**Greatest Automobile Value in America**

**WRITE FOR OUR LITERATURE**

**REGAL MOTOR CAR COMPANY, Detroit, Mich.**

BECKER STEEL COMPANY OF AMERICA
90 West Street, New York, N. Y.

BECKER St B QUALITY — BECKER St B UNIFORMITY

BEG TO ANNOUNCE THEY ARE SALES AGENTS IN THE UNITED STATES FOR

Stahlwerk Becker, A. G. Willich, Germany

Manufacturers of High Grade Steels and Tool Steel Tubing.

All of Becker Products are made by the Paul Girod Process of Electric Melting which is acknowledged to be the most improved method of making high grade steels.

Becker Steel Company of America

Sales Agents in the United States for Stahlwerk Becker, Willich, Germany

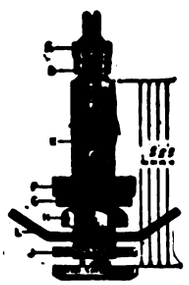
90 West Street New York, N.Y.

**Established 1844**

# SCHRADER UNIVERSAL VALVE

**Trade Mark Registered April 30, 1895**

**SIMPLE AND ABSOLUTELY AIR TIGHT**



Schrader Motor Tire Valves, as shown in cut, are the regular equipment for G & J Motor Tires, Hartford Dunlop Detachable Tires, Fisk Detachable Motor Tires, and New Goodyear Detachable Motor Tires.

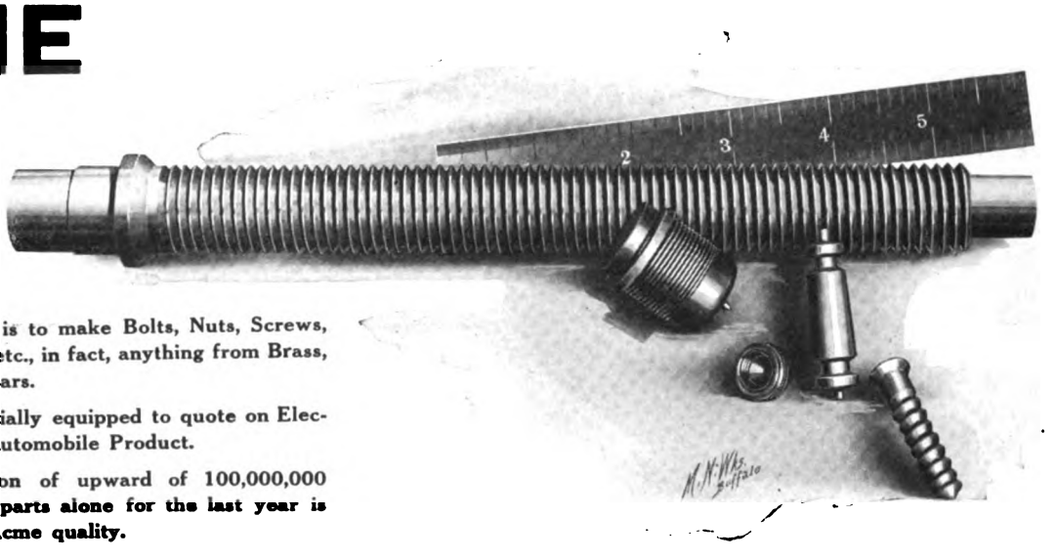
Our No. 777 Motor Tire Valve is the standard for 2½ inch and 3 inch tires and our No. 725 Motor Tire Valve is the standard for tires larger than 3 inches.

**Supplied to the Trade by All Tire Manufacturers**

**Manufactured by A. SCHRADER'S SON, Inc., 28-30-32 Rose St., New York**


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# ACME PRODUCT



OUR specialty is to make Bolts, Nuts, Screws, Plugs, Pins, etc., in fact, anything from Brass, Steel and Iron Bars.

WE are especially equipped to quote on Electrical or Automobile Product.

OUR production of upward of 100,000,000 Automobile parts alone for the last year is a guarantee of Acme quality.

THE reasons why: first class quality, attractive prices and prompt delivery.

We carry an especially large, well assorted stock of standard screws, both V and U. S. S. threads, at Warehouses and Factory.

## THE NATIONAL-ACME MANUFACTURING CO.

BRANCH OFFICES
New York Chicago Boston
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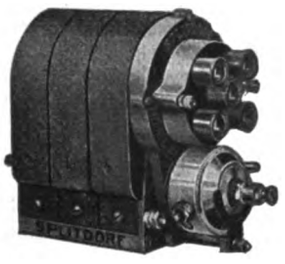
CLEVELAND, OHIO

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New York : : 77 White Street
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# SPLITDORF MAGNETO Again Winner!

The SPLITDORF equipped Maxwell won a Perfect Road Score and captured the Enos Trophy offered for the best score by any car in any class in the

## Buffalo Endurance Run




Here again SPLITDORF Ignition proved its Efficiency and Reliability—just as it did in the Munsey Tour—the Glidden Tour—the Reo's Record Run across the continent and in hundreds of other strenuous contests.

In the face of such proof why hesitate any longer to have your car equipped with a SPLITDORF Magneto?

*Ask for Magneto catalog.*

Chicago: 319 Michigan Ave.
San Francisco: 520 Van Ness Ave.
Detroit: 868 Woodward Ave.
Boston: Motor Mart.
Los Angeles: 1226 S. Olive St.

## C. F. SPLITDORF

**Walton Ave. and 138th St.**
**Branch, 1679 Broadway**

**New York**


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**Immediate Deliveries of 1911 Models**

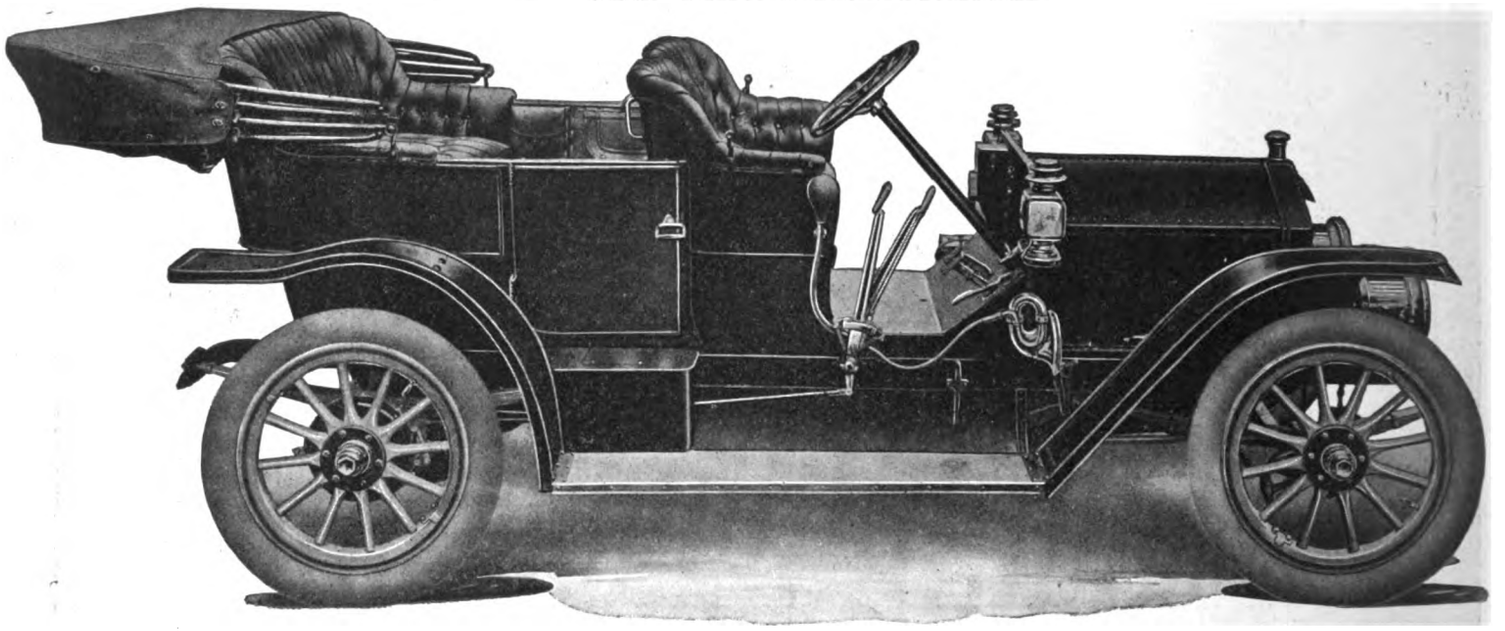
Write for advance 1911 printed matter. (See Motor World of August 11 for description of 1911 models).

Pullman AUTOMOBILES

**PULLMAN MOTOR CAR COMPANY**

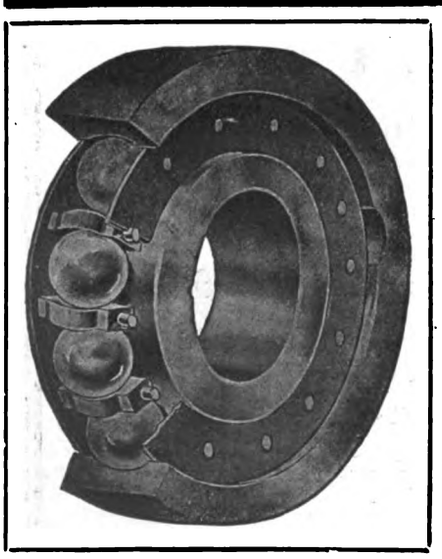
**York, Pa.**

Licensed under Selden patent.



Model K—1911, 35 H. P. Touring Car, $2,000; with Fore Door Body, Completely Equipped, $2,500

**The Pioneers to Employ 92% of Balls in the Raceway**



# SCHAFER Ball Bearings

## Fear No Comparison

**SUPERIORITY** In addition to the high grade character of materials and workmanship embodied in SCHAFER BEARINGS, the ingenious and novel construction of the ball cage permits the use of 25 to 50 per cent. more balls than is possible with any other known make—hence a durability and carrying capacity not otherwise obtainable.

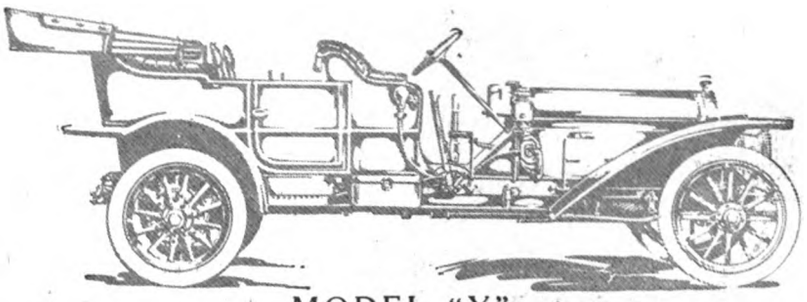
*Write for Prices.*

SOLE IMPORTERS

**BARTHEL, DALY & MILLER, 42 Broadway, New York City**


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# Stevens-Duryea



MODEL "Y"

REAL comfort and luxury in travel is secured with the ownership of a Model "Y". A ride for an hour or a day, even under severe touring conditions, will be found most enjoyable.

It is the ideal car for you to drive. The control is simple, it has wonderful power on hills and its perfect silence at all speeds wins the admiration of your guests.

Strong evidence concerning the superiority of the Model "Y" is found in our catalog. The descriptive and illustrated pages are interesting to a prospective purchaser. Let us mail you a copy.

STEVENS-DURYEA COMPANY
CHICOPEE FALLS - MASS.
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# STAMPINGS

**WHEEL FLANGES** **HUB CAPS**

# BRAKE DRUMS
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**BALL CUPS** HARDENED READY FOR HUBS **RETAINERS**

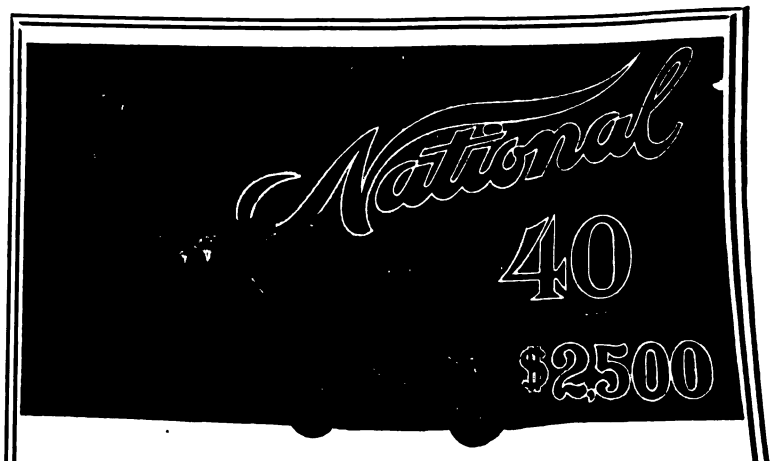
**Special Stampings to Order**

HEAVY and DIFFICULT FORMING and DRAWING WORK OF ALL KINDS

**Prompt Delivery Guaranteed. Prices Right.**

**THE BOSSERT COMPANY, Utica, N. Y.**


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# Wins Again

in the historic

## ALGONQUIN HILL CLIMB

gets the famous

# Algonquin Cup

one of the most coveted trophies in motordom.

**STARTED IN 7 EVENTS**
**WON FIRST IN 7 EVENTS**
**Algonquin, Ill., September 16**

Event No. 4—Free-for-All, National 40 1st, A. W. Greiner. Time, 0:59⅕.

Event No. 3—Class B, Division 5B, Under 600 cu. in., National 40 1st, A. W. Greiner. Time, 0:59⅘.

Event No. 2—Class B, Division 4B, 301-450 cu. in., National 40 1st, A. W. Greiner. Time, 0:57⅗.

Event No. 2—Class B, Division 5B, 451-600 cu. in., National 40 1st, A. W. Greiner. Time, 0:58⅗.

Events No. 2—Class B, Division 6B, 601-750 cu. in., National 40 1st, A. W. Greiner. Time, 1:00⅗.

Event No. 1—Class A, Division 5A, $2,001-$3,000, National 40 1st, J. H. Seek. Time, 1:05.

Event No. 1—Class A, Division 5A, Handicap, National 40 1st, J. H. Seek. Percentage, 8.78.

**More Power, More Speed, More Class, More Reliability Than Any Car in the World for $2500**

**NATIONAL MOTOR VEHICLE CO.**
1007 East 22d Street, INDIANAPOLIS, IND.

Licensed under Selden patent.

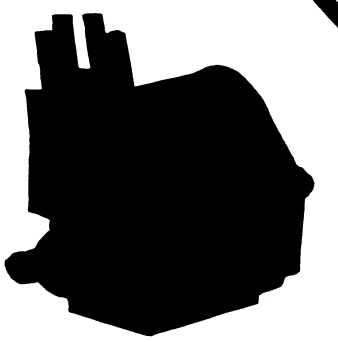
# Every Turn and Piece

of the magneto needs the most careful and skillful workmanship if the device is to be permanently and reliably efficient in service.

## Dealing with Electricity

requires painstaking thoroughness, such as is provided in the

# Pittsfield



## "Arc Flame System" Magneto

High tension, with stationary, removable coil. No moving wire on the armature. Each spark is followed by an arc flame. This arc flame will ignite a much weaker mixture than with the spark produced by the usual coil ignition. A variation of 45 degrees is allowed on the magneto shaft, which means 45 degrees in the crank shaft for a four cylinder, four cycle motor, as the magneto runs at crank shaft speed.

The retarded spark is just as efficient as the advanced spark, making it easy to start the motor with a quarter turn of the crank, with the timing lever fully retarded.

*Get the catalog of the "Pittsfield Ignition System"*

**Pittsfield Spark Coil Co.**
**DALTON, MASS.**

SALES REPRESENTATIVES—NEW ENGLAND, W. J. Connell, 36 Columbus Ave., Boston. ATLANTIC STATES, Thomas J. Wetzel, 17 W. 42d St., New York. CENTRAL STATES, K. Franklin Peterson, H. V. Greenwood, 166 Lake St., Chicago. MICHIGAN, L. D. Bolton, 319 Hammond Building, Detroit. PACIFIC COAST, The Laugenour Co., San Francisco.


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# HOMO

More Power

Less Gasoline

Steady Pull




More Speed

Less Heat

Less Vibration

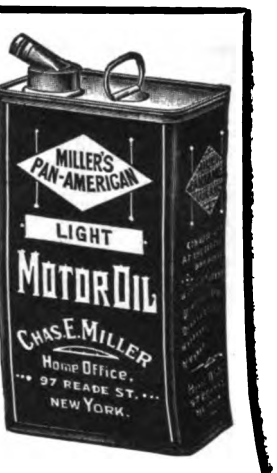
MAKES A FOUR CYLINDER RUN LIKE A SIX CYLINDER
ON THE GASOLINE CONSUMED BY A TWO CYLINDER

THE GREATEST SCIENTIFIC ADVANCE THE GASOLINE MOTOR WORLD HAS EVER KNOWN
WRITE FOR DESCRIPTIVE MATTER NOW

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MILLERS
PAN-AMERICAN
LUBRICANTS




MILLER'S
# Pan-American Motor Cylinder Oils

are refined from the finest grade Pennsylvania Crude and are pure, distilled, highly-filtered mineral oils. Have a high fire test, low cold test and not affected by climatic changes. They are made in three grades suitable for all types of water and air cooled Motor Cars, Motor Boats and Motorcycles. In order to convince you of the efficiency of these oils we are willing to make you a special price for an initial order, much lower than usually quoted on other high grade oils.

WE HAVE HANDLED THIS OIL DURING THE PAST EIGHT YEARS AND DO NOT HESITATE TO RECOMMEND IT TO BE THE EQUAL OF ANY FIRST CLASS OIL ON THE MARKET.

Special Prices for Manufacturers, Jobbers and Dealers

ADDRESS OIL DEPARTMENT

CHAS. E. MILLER, MANUFACTURER, JOBBER, EXPORT AND IMPORTER
Home Office, 97-99-101 Reade St., New York City

The Largest Auto Supply House in America.

BRANCHES—Philadelphia, Boston, Cleveland. Detroit. Buffalo. Hartford. Atlanta, Brooklyn, New York City.


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# Empire Tires
WEAR LONGEST

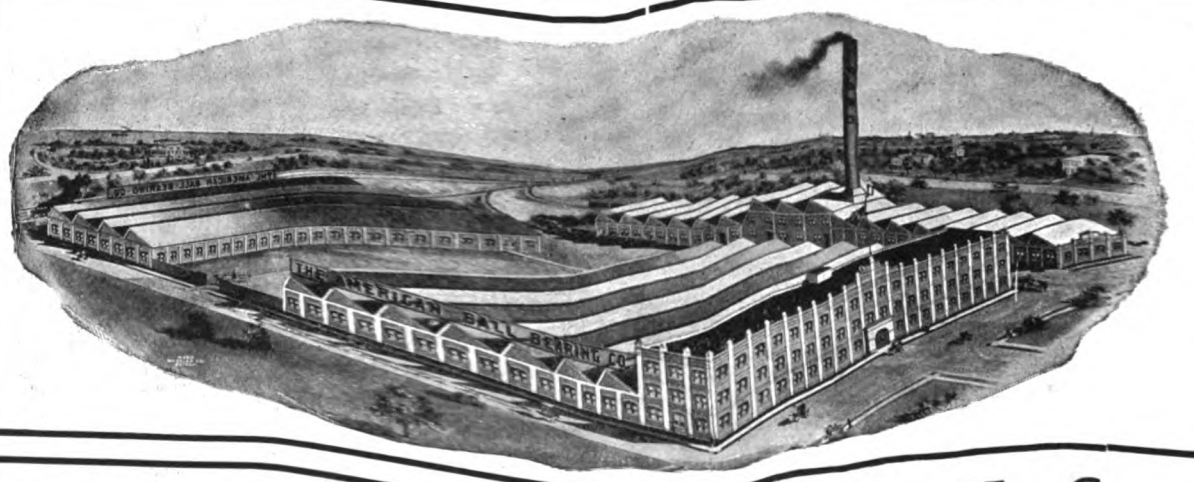
EMPIRE TIRE CO., Trenton, N.J.

## DROP FORGINGS—QUICK DELIVERY

Our new drop forge plant has been in full operation for the past three months. It is equipped with the latest type of hammers and is especially adapted for making crank shafts, cam shafts, connecting rods, gear blanks, steering knuckles and other forgings used in automobile construction. We are particularly proud of the quality and finish of our forgings.

*Send blue prints for prices.*

A. O. SMITH COMPANY, Milwaukee, Wisconsin




THE OUTPUT of complete Front and Rear Automobile Axles of this plant exceeds the capacity of all competition combined.

**The American Ball-Bearing Company**

L. S. & M. S. Ry. and Edgwater Park
CLEVELAND, OHIO, U. S. A.

## THE 1911 OWEN

The 1911 OWEN BERLIN represents the highest development of closed car construction. It is the embodiment of comfort with exclusive features affording greater convenience than can be enjoyed in other cars. The easy running qualities of the OWEN BERLIN are unequaled because of large wheels, OWEN spring suspension and minimum vibration from the long stroke motor. Combining these features with interior appointments of the most luxurious character, the OWEN BERLIN (seating six) is a car certain to please the most exacting.

Catalog and detailed descriptive matter sent upon request.

**OWEN MOTOR CAR COMPANY**
1620 East Grand Boulevard DETROIT, MICH.

## You Can Always Depend On Reliance Spark Plugs



$1.00

Do Your Spark Plugs Crack?

"Reliance" plugs don't.

We make our own porcelains—make 'em right. Guarantee our Porcelains not to crack.

And on every other point they give you better service—

Try Reliance Plugs — Regular type $1.00. Magneto type $1.25.

At your dealers or mailed on receipt of price.

JEFFERY-DEWITT CO.
65 Butler Ave., DETROIT, MICH.


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It isn't because we advertise, it isn't because of any special salesmanship we possess, that most of the high-grade American cars are today equipped with Solar Lamps.

It takes more than good advertising or good salesmanship to make a car manufacturer pay out thousands of dollars more for his lamp equipment each year.

It's because the vast army of Solar users have spread abroad through the motoring public the knowledge that Solars are the only absolutely, reliable, dependable and satisfactory lamp equipment.

Even when a car maker doesn't equip regularly with Solar Lamps, he'll furnish them if you insist on them. Have him put Solars on your car, and join the great army of those who have abolished lighting troubles.



*We should like to place* our interesting *free catalog in your* hands.

**Badger Brass Mfg. Co.**
**Kenosha, Wis.** **New York City**

(93)

# Mosler Spit Fire

THE PLUG WITH THE DEEPEST CHAMBER

# Leads the World

READ **NOTICE!** READ

Our SPIT-FIRE Plugs are for sale by all legitimate dealers and jobbers.

If you cannot get a delivery—
THERE'S A REASON!

WRITE US DIRECT

**WE CAN SHIP ON TWENTY-FOUR HOURS' NOTICE**

Dealers and jobbers beware! We protect our trade mark

PACKED IN THIS BOX — FOR YOUR PROTECTION



DONT BUY IMITATIONS

A. R. MOSLER & Co. 163 W 29TH ST. NEW YORK.

# WETHERILL FINISHED CASTINGS

¶Die cast from Parson's white brass make the finest kind of engine bearings.

¶Absolutely accurate and every one interchangeable.

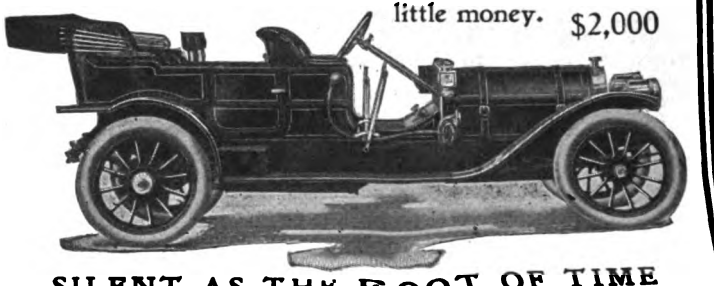
¶We are now making 25,000 bearings per day, and increasing output as rapidly as possible. A case where quality is recognized and put to use.

**WETHERILL FINISHED CASTINGS COMPANY**
PHILADELPHIA, PA.

THE

# MITCHELL SIX

The only six cylinder car in the world that sells for so little money. $2,000



**SILENT AS THE FOOT OF TIME**

Specifications: MOTOR, 4½x5. TRANSMISSION, selective type. WHEELS, 36x4. WHEEL BASE, 130 inches. IGNITION, magneto and dry cells. Color, dark blue, cream running gear; option, dark maroon, cream running gear. TOOL BOXES, steel baked enamel. SEATING CAPACITY, seven passengers. STEERING WHEEL, natural finish. SPRINGS, platform type. BODY OPTIONS, seven-passenger touring car or close-coupled body. EQUIPMENT, oil lamps and horn, full tool equipment, including jack.

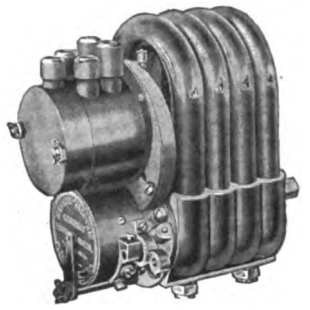
# MITCHELL

Licensed under Selden patent.

*F. O. B. Racine, Wis.* Racine, Wis., U. S. A.

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## Heinze High Tension Magneto



**Construction**—Mechanically unequalled.

**Durability**—Greater than the life of the car.

**Efficiency**—Proven by the users.

*Catalogue H with full information is yours for the asking.*

**HEINZE ELECTRIC COMPANY**
Lowell, Massachusetts

## STEERING GEARS
## CONTROL LEVERS
## RADIATORS

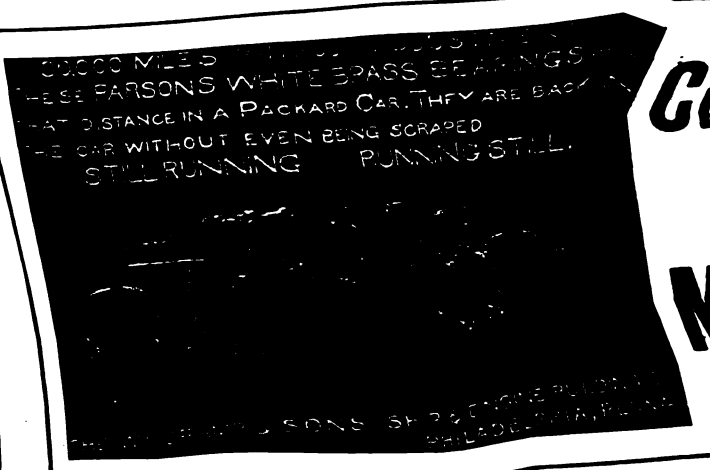
PROMPT DELIVERY

**CENTAUR MOTOR COMPANY**
510 Majestic Building
DETROIT

## HARDENING
**High Speed Steel Hardening a Specialty**

Case Hardening, Tool Steel Hardening
Heat Treating and Annealing

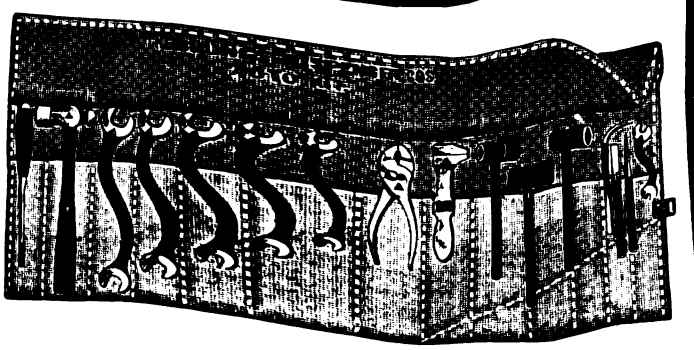
**BRIDGEPORT METAL TREATING CO.**
Bridgeport, Conn.




**Cramp — Metals**

## The B & S Tool Kit

Every tool a steel drop-forging, a handy and popular selection. No better guarantee than the fact that each tool is made by



New Catalog
**THE BILLINGS & SPENCER CO., Hartford, Conn.**

## BRISCOE PRODUCTS

**Radiators, Hoods, Fenders, Sheet Metal Parts of All Kinds**

**Briscoe Manufacturing Co.**
General Offices, Detroit, Mich. Factories, Detroit and Newark, N.J.

## THE ATWATER KENT
# UNISPARKER

"Gives Perfect Ignition"

**ATWATER KENT MFG. WORKS**
33 North Sixth Street
PHILADELPHIA, PA.

## WARNER GEAR COMPANY
MUNCIE, INDIANA



25 H. P. PLANETARY TRANSMISSION
Showing Both Cone and Disc Type Clutch.

Steering Gears
Transmissions
Differentials
Clutches
and
Control Levers

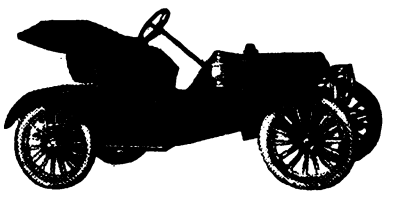

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Ford

The Sign of Highest Quality and Car Service to Buyer and Dealer

FORD Automobiles need no introduction. Years of satisfactory service have proved them to be the best. We need dealers in all parts of the country. Write us.

Ford Motor Company
Detroit, U. S. A.



$485
1911 Metz Runabout

Fully assembled and completely equipped as shown at above price.

Sold exclusively through dealers.

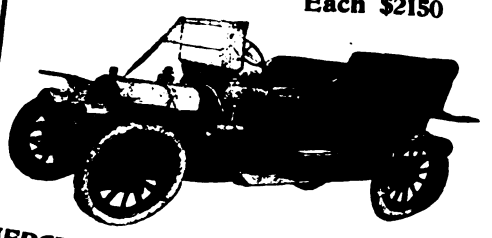
We want good live dealers; those who believe in low price, economical cars and can sell them.

It will pay the wide awake dealer to get in touch with us.

METZ COMPANY, Waltham, Mass.

MERCER
TOURING CAR
TOY TONNEAU
SPEEDSTER

Each $2150

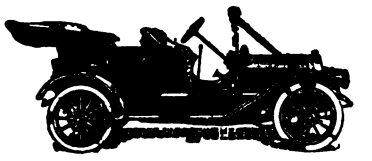


Style, Luxury, Quality, Strength, Speed.

Made Right and Stays Right

Let us hear from you

MERCER AUTOMOBILE CO., Box 126, Trenton, N. J.



$1,600 Cartercar

Model "L," 4 cylinder, 30-35 H.P., 110 inch wheel base, 5 passenger, Friction Transmission. Chain-in-Oil Drive, any number of speeds, will climb a 50% grade with load, including magneto, gas lamps, generator, horn, mats, tools, jack, etc. $1,600.

Model "H," 4 cylinder, 25 H.P., 100 inch wheel base, Runabout $1,100. Double Rumble $1,125 Double Divided Rear Seat $1,150. Miniature Tonneau $1,150.

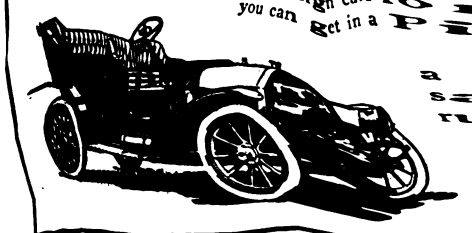
Write for 1910 catalog.

CARTERCAR CO.
Pontiac, Mich.
Licensed Under Selden Patent.

Pierce-Racine

The Car with a Famous Engine

You will have to look to the high priced American and foreign cars for the same value you can get in a Pierce-Racine at— $1750



If you were to pay $4,000 for a car you could not get a more satisfactory motor or an easier running car.

Send for catalog today.

PIERCE MOTOR COMPANY
111 22nd St., Racine, Wis.

Not a Car of Advertised Value,
But a Car of Intrinsic Worth.

STERLING

$1750

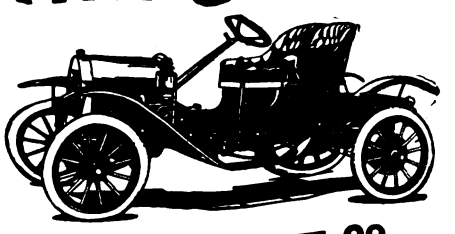
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ELKHART MOTOR CAR COMPANY, Elkhart, Ind.

EVERY MAN'S CAR

Seven Models

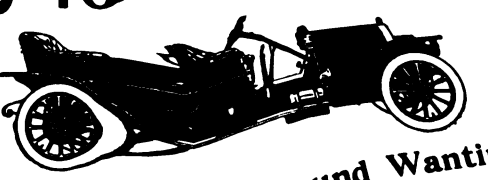
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The BRUSH $485.00

BRUSH RUNABOUT COMPANY
414 Baltimore Avenue, Detroit, Mich.

National 40 — $2500



The Car That Is Never Found Wanting

Bigger, Faster, More Powerful, More Luxurious Than Any Car Near Its Cost.

National Motor Vehicle Co.
1007 E. 22d Street Licensed under Selden Patent Indianapolis, Ind.

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CORBIN

1911 ANNOUNCEMENT

Watch for It

CORBIN MOTOR VEHICLE CORPORATION
New Britain, Conn., U. S. A.
Licensed under Selden patent.

LION "40"

"RUNS LIKE SIXTY"

The Greatest Car of the Greatest Century

Some desirable territory open to dealers making immediate application.

LION MOTOR SALES CO. 650 Woodward Ave. Detroit, Michigan
General Agents for United States and Canada.

COLE 30-1911

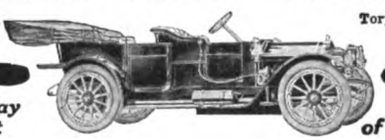
The Classiest Car of Them All

The sturdiest, most rugged, most practical car you can wish for, with the same graceful, fetching lines, rich upholstering and perfect mechanism for which you must pay a thousand dollars more in other cars.

C. P. Henderson, Sales Department,
Cole Motor Car Company, Indianapolis, Ind.

"Fore-Dore" Touring Car, 30-36 H. P. $1,650

Cole Flyer Torpedo Roadster, 30 H. P. $1,500



*Write Today for Booklet* *and Name of Local Dealer*

K-R-I-T

"The car with the invisible start."

96 in. wheel base
32 in. wheels

22½ H. P. $800

Sliding gear transmission. Multiple disc clutch. Weight, 1200 lbs.

Runabout $800.
Roadster $825.
Surrey $850.



Write for Catalog

K-R-I-T Motor Car Company
DETROIT



VAN WAGNER DIE CASTINGS

ACCURATE—Guaranteed to the 1-1000 of an inch.
FLAWLESS—Made by our patented Vacuum Process.
STRONG—Thirty years' experience in compounding alloys.

Send us your prints for estimates.

E. B. VAN WAGNER MFG. CO. 706 Union Building SYRACUSE, N. Y.

The only car of established reputation selling at a moderate price.

HAYNES

$2000

Station C, KOKOMO, IND.
Licensed under Selden Patent.

The H. F. M. Oil Filtering
AND
LUBRICATING SYSTEM

is the first radical and distinct improvement in automobile lubrication since the industry began.

AUTOMATIC OIL FILTER
SELF-CLEANING CRANK-CASE

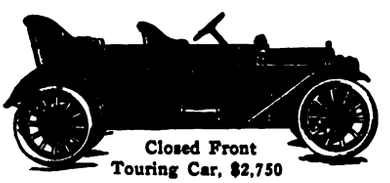
Provide Clean, Cool Oil All the Time.

Write for convincing proofs.

THE AL-TON MOTOR ACCESSORY CO.
E. South Street Akron, Ohio

THE MARMON

"The Easiest Riding Car in The World"



Closed Front Touring Car, $2,750

Has won practically all the important long-distance racing events of America.

NORDYKE & MARMON CO., Indianapolis, Ind.
(*Estab. 1851*) Licensed under Selden patent.


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## A Real Battery
### AT A REAL BARGAIN

We have on hand a number of 6 v. 60 amp. dry type storage batteries, built for us by one of the best known manufacturers. These batteries were built to sell at $26.00 and are worth the money, but as we have accidentally become overstocked, we offer them while they last at $12.50.

No better battery is built or sold at any price.

**EXCELSIOR SUPPLY CO.** (*Estab. 1876*) Randolph St. Bridge CHICAGO, ILL.

## Sell Cars That Save Money

If you can't show a buyer that you can save him money, you can't get him to give up horse delivery. One

*Send for catalog and agency offer that is best from every viewpoint.*

**MONITOR**



will do the work of three horse-drawn vehicles. A horse eats all the time, but a Monitor's upkeep stops with its wheels. It is

**"Designed Right—Built Right—Priced Right"**

You not only have the latest improvements to offer, but the best prices. Our shaft drive transmits 90 % power from plant to rear axle.

MONITOR AUTOMOBILE WORKS
214 N. Academy St. Janesville, Wis.

When in Detroit stop at

## Hotel Tuller



**Automobile Headquarters.**
**Absolutely Fireproof.**
**Every Room Has Bath.**
**Rates $1.50 up.**
**In the Center of the Business District Facing Beautiful Grand Circus Park.**
**Finest Grill Room in the City.**
**Our Grand Roof Garden Cafe Opens June 1st.**
**Vocal and Instrumental Music.**

L. W. TULLER, Prop.

## SERVICE and SATISFACTION

are assured when

## G & J TIRES

are used.

**G & J TIRE CO., Indianapolis, Ind.**
We Sell Continental Demountable Rims.

## "RAJAH" SPARK PLUGS

**IGNITION ABSOLUTELY SURE**

**RAJAH AUTO SUPPLY COMPANY**
**BLOOMFIELD, NEW JERSEY, U. S. A.**
(Watsessing Station, D., L. & W. R. R.)

## Diamond

**The Pioneer Motor Tires of America**

FIRST—BEST

**THE DIAMOND RUBBER COMPANY, Akron, Ohio**

## Real Radiators

made of individual square tubes so much imitated in appearance, only.

## FEDDERS RADIATORS

are just what they appear to be—genuine square tubes. Furnished with tubes "staggered" or Mercedes finish.

You See the Fedders on the Finest Cars

**FEDDERS MANUFACTURING WORKS, Buffalo, N. Y.**

## The Royal Equipment Co.

Manufacturers of

TRADE MARK **Raybestos**

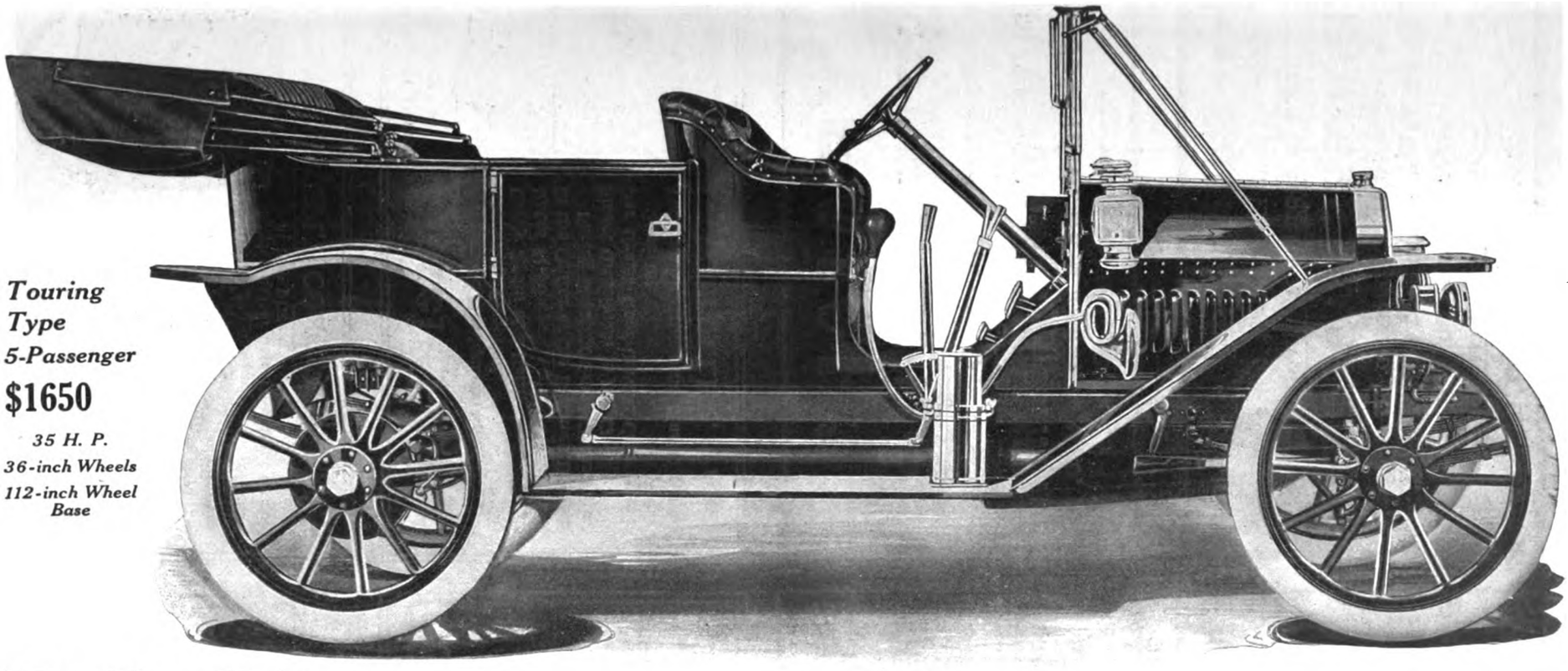
**BRAKE LINING**

and

**The Raymond and Duplex Brake**

**436 Housatonic Ave., BRIDGEPORT, CONN.**


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*Touring Type*
*5-Passenger*
**$1650**
*35 H. P.*
*36-inch Wheels*
*112-inch Wheel Base*

# Moline "35"

A car distinguished not only for its remarkable record in the recent Glidden Tour but also for the perfect satisfaction it gives to its owners. Here is proof:

## To Buyers

WHEN you buy a 1911 Moline you buy a car which has proved itself stanch and true in the most severe tests ever given to an automobile. Send for our new catalog No. 61 and special booklet with interesting story of the 1910 Glidden Tour.

"I have been driving one of your Moline cars for the past three years during which time I can truthfully state that I have enjoyed automobiling most thoroughly. The reasons are obvious. I haven't had any trouble of consequence. The car is always ready to take me wherever I desire to go. The engine, I consider a most remarkable piece of machinery. I have covered over 20,000 miles. The Moline is a car that is absolutely reliable in every respect."
W. C. Kussmaul, Milwaukee, Wis.

Absolute dependability and smooth, noiseless, long stroke motor are the distinguishing characteristics of the 1911 Moline.

*Also made in Toy Tonneau, 4-Passenger, $1600.*

**Moline Automobile Co.** 61 Keokuk Street **E. Moline, Ill.**

*Licensed under Selden Patent*

## To Dealers

WE have some desirable territory still open to dealers, and will make an attractive proposition to wide-awake progressive firms who write quickly for the Moline agency. There is satisfaction as well as profit in selling a car that wins.



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**The 1911 Packers 1-Ton Truck $2500**



**The 1911 Packers 2-Ton Truck $3000**

**The 1911 Packers 3-Ton Truck $3400**

# The Packers Motor Truck is Equal to all Conditions of Road and Load

The Packers Truck is adapted alike to long heavy hauls and to short, quick hauls.

It is the one truck that is equal to all conditions of road and load.

Weight it down to its maximum capacity and it will haul the load over any road without strain on any part. It is equal to every condition and requirement that a commercial power-wagon may be called upon to meet. Working on the theory that no chain is stronger than its weakest link we have focused the searchlight of experience and skill on every part.

Nothing ha sbeen overlooked — nothing has been skimped — nothing has been cheapened — every piece of material entering into tne construction of the Packers Truck is of the highest quality obtainable.

These parts are all standardized to the minutest part of an inch.

The result is an easy running, thoroughly, trustworthy truck that stands today without an equal either in this country or abroad.

Built in three sizes—one, two and three ton carrying capacity—all on the same general design.

In the recent competitive run from Philadelphia to Atlantic City the Packers three ton truck covered the distance in 3 hours and 9 minutes, with perfect mechanical score. On the return trip from Atlantic City to Philadelphia, and in a heavy downpour of rain the same truck negotiated the distance in 3 hours and 22 minutes, with perfect score in every respect. This wasn't merely a brilliant spurt nor a stroke of luck; it is the kind of work the Packers truck has been doing right along and that it can be depended upon to do for you, Mr. Progressive Business Man, every day in the year. Isn't this just the sort of truck you want? Let us send you the catalogue.

## SPECIFICATIONS
### FOR THE PACKERS 3-TON TRUCK

Speed—15 miles.
Weight—Chassis, 6,300 lbs.; with Open Body 6,800 lbs.
Motor—4-Cylinder 5¼ x 6, cast single, water cooled.
Horsepower—50.
Ignition—Dual system, Remy Magneto.
Carburetor—Stromberg.
Clutch—Famous Hele-Shaw Multiple Disc.
Drive—Double chain, extra heavy.
Wheels—Artillery, 36 inches front and rear.
Tires—36x5 single in front; 36x4 dual in rear.
Frame—Channel section rolled steel, all joints hot riveted.
Wheel Base—150 inches, eliminating excessive overhang.
Brakes—Two external, contracting on drums of jack shaft; two extra large internal expanding brakes on rear wheel drums, operated by hand lever.
Steering Gear—Heavy worm and sector.
Gasoline Capacity—26 gallons.
Equipment—Side and tail oil lamps, odometer, jack and tool kit.

**One and Two Ton Trucks are Built on the same Design**

**TO DEALERS—You want to handle a truck that is beyond all experimental stages. We want more dealers to handle the increasing demand. Write today for territory.**

## THE PACKERS MOTOR TRUCK COMPANY, Pittsburg, Pa.

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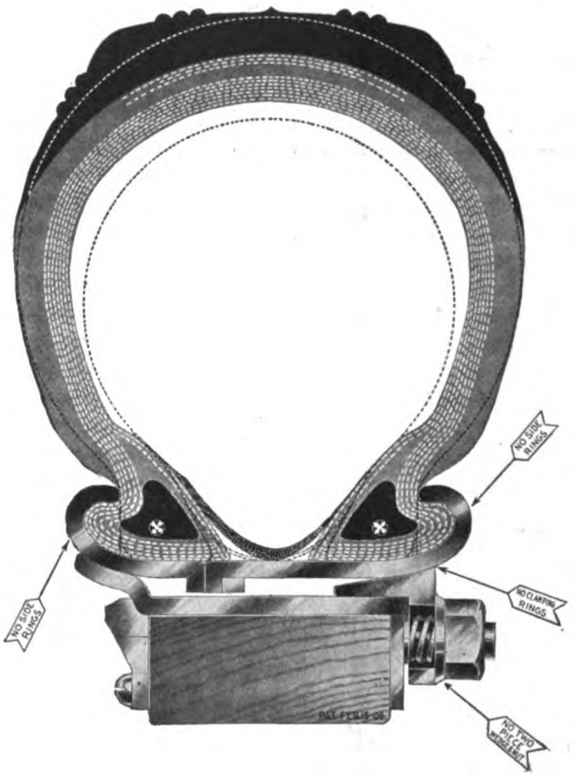
**Mr. Motorist: Compare the number of parts comprising one complete set of**

# Continental

# DETACHABLE DEMOUNTABLE RIMS

**(United Rim Co.—Standard Universal Demountable Rim No. 3)**

with other heavy, cumbersome and old style detachable demountable rims.




## 50% Fewer Parts — 100 Pounds Less Weight

Extra parts are heavy, require more operating expense, wear on tires and mean less car service.

## LIGHT—SAFE—SIMPLE

CONTINENTAL DETACHABLE DEMOUNTABLE RIMS require no special type of tire. No arduous labor to remove side ring attachments—the common nuisance of other cumbersome and make-shift rims, or no short stem staybolts to handle.

## MECHANICALLY PERFECT IN EVERY DETAIL

and used as REGULAR EQUIPMENT (no extra charge) by most of

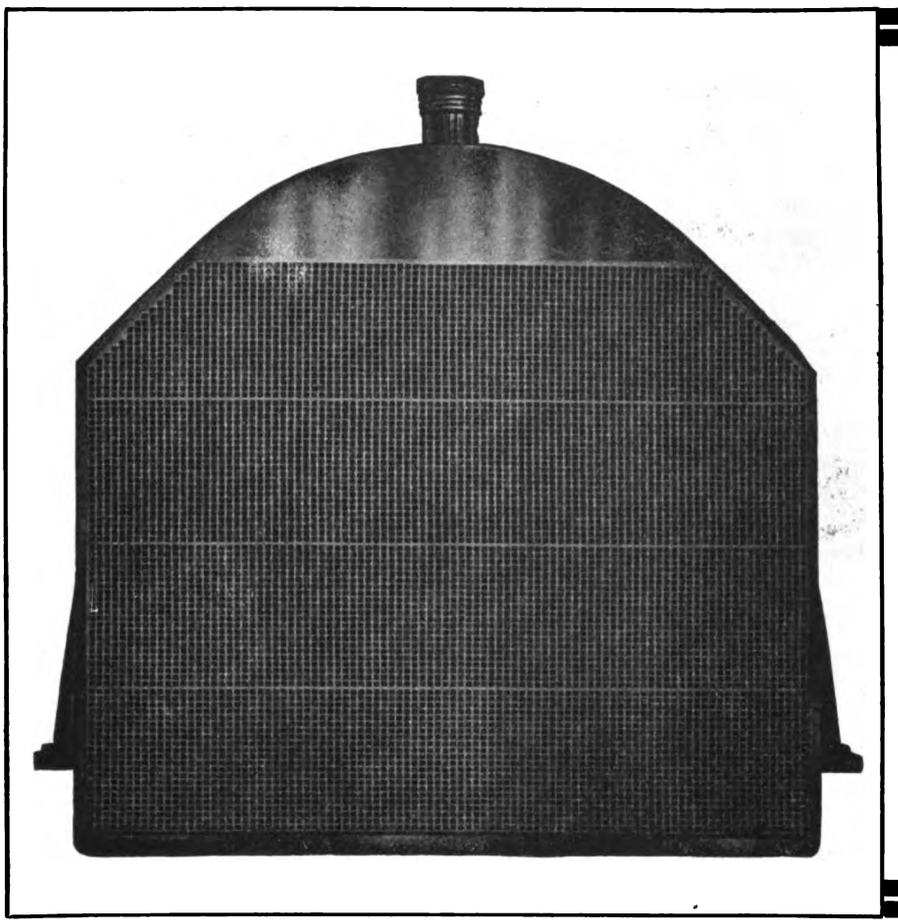
**America's Best Car Makers.**

## CONTINENTAL CAOUTCHOUC COMPANY

**1788-1790 Broadway, New York City**

**(Branches and Agencies in 30 different Cities)**

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# Honesty of Pnrpose

¶The use of MAYO RADIATORS is a pretty good indication of the sincerity of the manufacturer claiming to build a really high-class car.

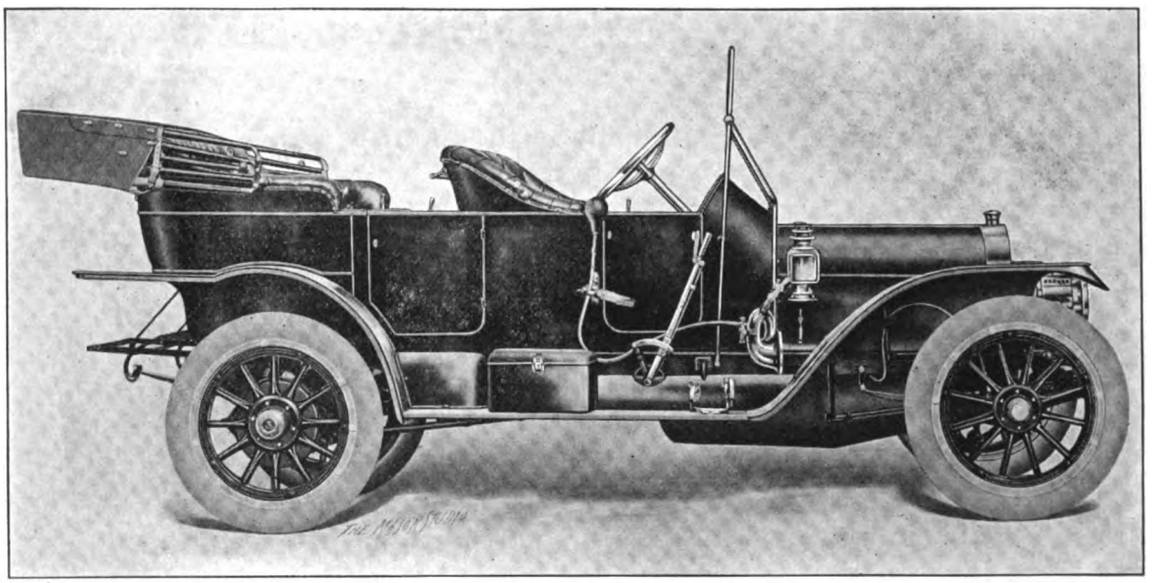
¶The list of Mayo customers reads almost like the roll of honor of the American automobile industry.

¶We take only such contracts as we can handle according to the conditions under which they are accepted.

¶You can not only bank on MAYO RADIATORS being uniformly of sterling worth but on receiving them on schedule time.

¶Radiator satisfaction is complete with the use of MAYO RADIATORS.

**MAYO RADIATOR COMPANY**
**New Haven, Conn.**



Model "R," 40 H. P., Series B, Touring Car, $3500.00

Knox

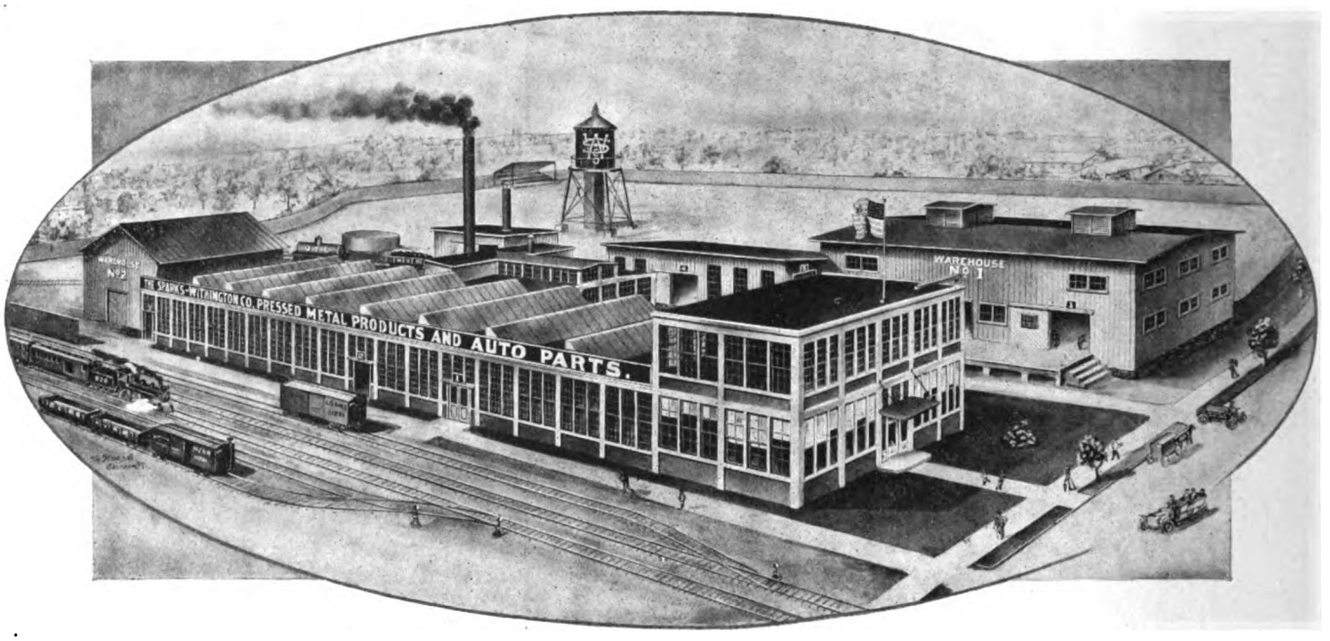
Member A. L. A. M.

Discriminating people like the Knox car for its beauty of outline and richness of finish. It has a Lasting Quality that stays new.

*A Postcard Brings Our Catalog*

**KNOX AUTOMOBILE CO., Springfield, Mass.**

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PLANT OF SPARKS-WITHINGTON COMPANY, JACKSON, MICHIGAN

# Pressed Metal Parts Worthy of America's Best Cars

Sparks-Withington products of pressed metal occupy a place in the opinion of leading automobile builders that might well be envied.

They are rated A1—and they justify their standing.

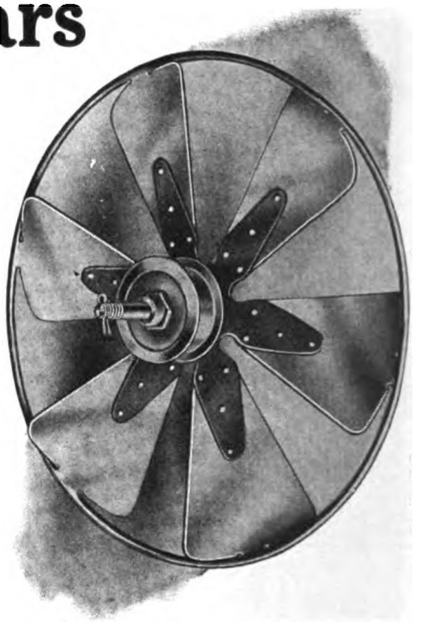
This reputation is not of a day's making.

It has been years in the building; and it will be maintained as consistently in the future as it has been in the past.

Among the pressed metal products of the plant pictured herewith are:

**Fans; Brake Drums**
**Hubs and Hub Caps, Ball Cups, etc.**

Any or all of these are furnished on our specifications or to meet the special requirements of the buyer.

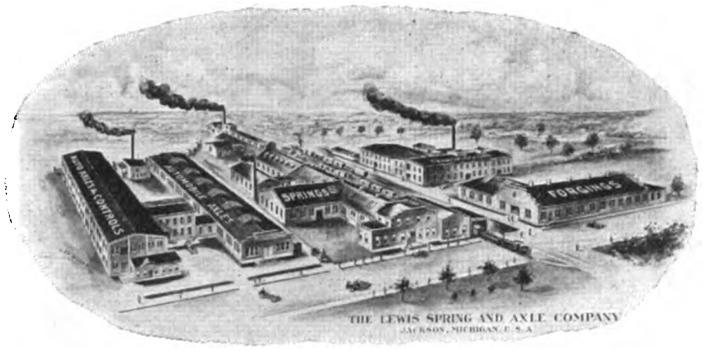


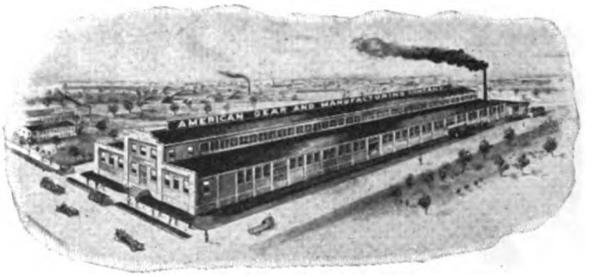
## SPARKS-WITHINGTON COMPANY, Jackson, Mich.

**SALES AGENTS:**

**AMERICAN DISTRIBUTING CO., 1030 S. Park Street, Jackson, Mich.**

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# Made in Jackson—the Assurance of Highest Quality in Automobile Parts

Five Jackson manufacturers—with a combined yearly output of $5,000,000—have adopted a new plan for marketing their product.

They have said to us:

"You sell our goods; do nothing else.

"We will devote our undivided time to the manufacturing and to maintaining the high quality which has given our products their good names."

Long ago, when these companies were comparatively young, and when the automobile industry was younger, the car builders began to look to Jackson for the best parts.

The automobile manufacturer then recognized the superiority of the parts he bought in Jackson; and he recognizes it now.

The five companies referred to are:

**Lewis Spring & Axle Company,**
**Sparks-Withington Company,**
**Hayes Wheel Company,**
**American Gear & Manufacturing Company,**
**Frost Gear & Machine Company.**

The parts they make include:

**Front and rear axles**
**Wheels**
**Springs**
**Transmission and differential gears**
**Pressed metal parts—fans, hub caps, brake drums, etc.**
**Steering and side lever control sets**
**Drop forgings, etc.**

The plan of manufacturing and marketing as outlined above assures other vital things, in addition to quality: saving of time and money; deliveries as specified, etc.

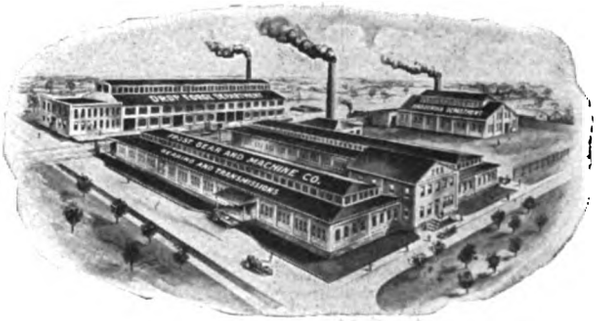
A representative will call if you signify your interest.

## AMERICAN DISTRIBUTING CO., 1030 S. Park Street, Jackson, Mich.

**Sales Agents for**

LEWIS SPRING & AXLE CO. FROST GEAR & MACHINE CO. HAYES WHEEL CO.
SPARKS-WITHINGTON CO. AMERICAN GEAR & MANUFACTURING CO.




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# Reliance the Reliable Sparks in Water

## What Reliance Spark Plug Instructions Are:

**FIRST—Don't bother about soot.**
**SECOND—Carbon need not be considered.**
**THIRD—It is not necessary to clean them.**
**FOURTH—Water will not short-circuit them.**

¶ They are plugs which give your engine the most intense spark—without any bother. They require no attention.

¶ Reliance plugs are good plugs because the makers have banished all experimental constructions. They have their own pottery which makes porcelain for the product—a new heat-proof composition especially developed for the purpose.

¶ Reliance plugs are years ahead of the old, antiquated methods of spark plug construction. They are modern spark plugs for modern vehicles.

¶ TEST THEM for yourself. Place two plugs in a glass of water and turn on the current. The little blue blaze is there.

¶ Soot, carbon and water are harmless where the Reliance is used. They will save the battery, too.

¶ Write for our book on spark plugs. We will also send FREE an amazing little electrical novelty.

**Be sure you get Reliance plugs next time.**

**JEFFERY-DEWITT CO., 65 Butler Ave., DETROIT, MICH.**

**Manufacturers of Reliable Spark Plugs**





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# SHALER ABSORBS Stitch-In-Time Vulcanizer

We have acquired the entire business of the Stitch-In-Time Vulcanizer Co., of Topeka, Kans., including their basic patents on portable vulcanizers.

By a combination of the best features of the Stitch-In-Time Vulcanizer with a number of improvements we have been working on for several years, we have produced the first portable, flame heated vulcanizer with an absolute heat control, without which a vulcanizer is worse than useless. With the heat control, however, it is the most valuable accessory a man can purchase for his car.

It can be used by anyone, at any time, at any place—by the road-side, on the farm, in the city.

The price is so low—$10.00—that no automobilist can afford to be without one. It will lengthen the life of his tires, cut down his repair bills, and do away with sand-pockets and blow-outs.

We have christened this vulcanizer

THE SHALER

## Stitch-In-Time Vulcanizer

Mr. Shaler worked for three years to perfect the heat control on this vulcanizer. It is a triumph of ingenuity—absolutely simple and reliable—a damper that closes automatically when the vulcanizing temperature is reached and maintains the correct amount of heat for any length of time.

Besides the heat control, there are a number of exclusive features that make the "Shaler Stitch" the only practical flame vulcanizer. The patented handle enables you to heat the vulcanizer while getting the repair ready and apply it while hot, thus saving time. The U. S. Government tested heat gauge is absolutely accurate. The table for vulcanizing inner tubes is a model of convenience. But it is impossible to tell you all the features in this advertisement. You can get them by writing at once for a complimentary copy of the famous handbook, "Care and Repair of Tires." It tells all about the vulcanizer and has a remedy for every tire emergency.

**EVERY MACHINE SOLD ON A LASTING AND BINDING GUARANTEE**

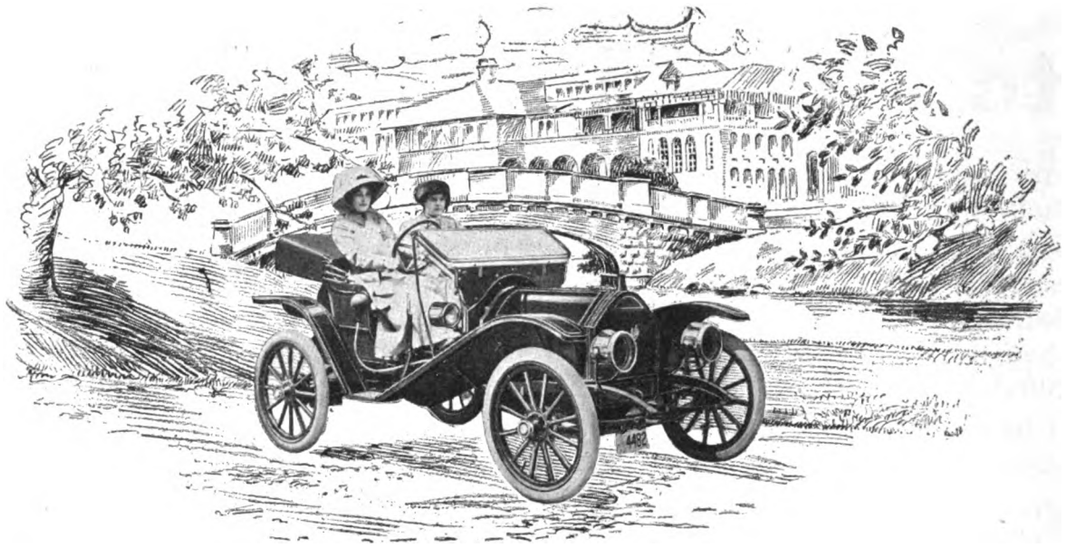
**Don't forget that the price is but $10.00**

MAKERS OF THE RENOWNED SHALER ELECTRIC VULCANIZERS FOR OWNERS AND GARAGES

**C. A. SHALER CO., 1210 Fourth Street, Waupun, Wis., U. S. A.**

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# The other day a Hupmobile fell over a cliff 500 feet high—Read about it



**$750**

**4 Cylinders, 20 H. P.; Sliding Gears; Bosch Magneto**

**Hupmobile**

**$750**

**F. O. B. Detroit,**

**including three oil lamps, tools and horn. Top, gas lamps, tank or generator, speedometer and trunk rack extra.**

Buying an automobile is no longer a game of "blind man's buff."

There are just three things to consider in the Hupmobile or any other car:

First cost;
After cost;
Quality of service.

The Hupmobile is ready for your investigation on all three points.

In the first cost it has the field to itself.

No other plant in America could produce as good a car as the Hupmobile to sell for $750, without losing money.

They might build a car of the same size and design—but it would be a manufacturing impossibility to build it as well; of materials as fine; without duplicating the Hupp equipment and going through the progressive Hupp experience of three years.

The other day a Hupmobile in California fell over a cliff 500 feet high. It cost the owner just $45 to put it back into perfect condition.

There isn't even a "second hand" Hupmobile. Year-old Hupmobiles command pretty nearly full list price. The "Hups" that started going three years ago are still going—every blessed one of them.

Last November, for instance, a Hupmobile went into service at Atlanta as a demonstrator. It ran over 16,000 miles; then entered the Atlanta-New York run (a terribly trying contest) and calmly skimmed over the finish line with a perfect score.

That's how good and strong and sound the Hupmobile is. In that respect—on the basis of soundness—you could not buy better value, if you paid four times $750.

Now, how about the after cost?

Well, the vast majority of Hupmobile owners—practically all those who take care of their own cars—have an all-the-year-around expense account of about 25c. a day.

Look around you. Consider any other car from the standpoint of upkeep. Do you know—have you ever even heard—of a record of economy that compares with the Hupmobile record?

Twenty-five cents a day—$7 to $10 a month—cheaper than street car or horse, bearing in mind the service rendered and the ground covered.

And as for service—there isn't a crippled Hupmobile in America, unless it's been crushed in an accident.

Look all around you in your home town—you'll see Hupmobiles everywhere. Where will you find a happier owner than the Hupmobile owner? What car has such an overwhelming proportion of delighted owners?

Think about these things. First cost; after cost; service—study these three points in any car you consider.

You'll end by buying a Hupmobile.

## HUPP MOTOR CAR CO., Dept. K, Detroit, Michigan

Licensed under Selden patent.

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# 1911

# $1750 Inter-State $2000

# These Values Compel Investigation

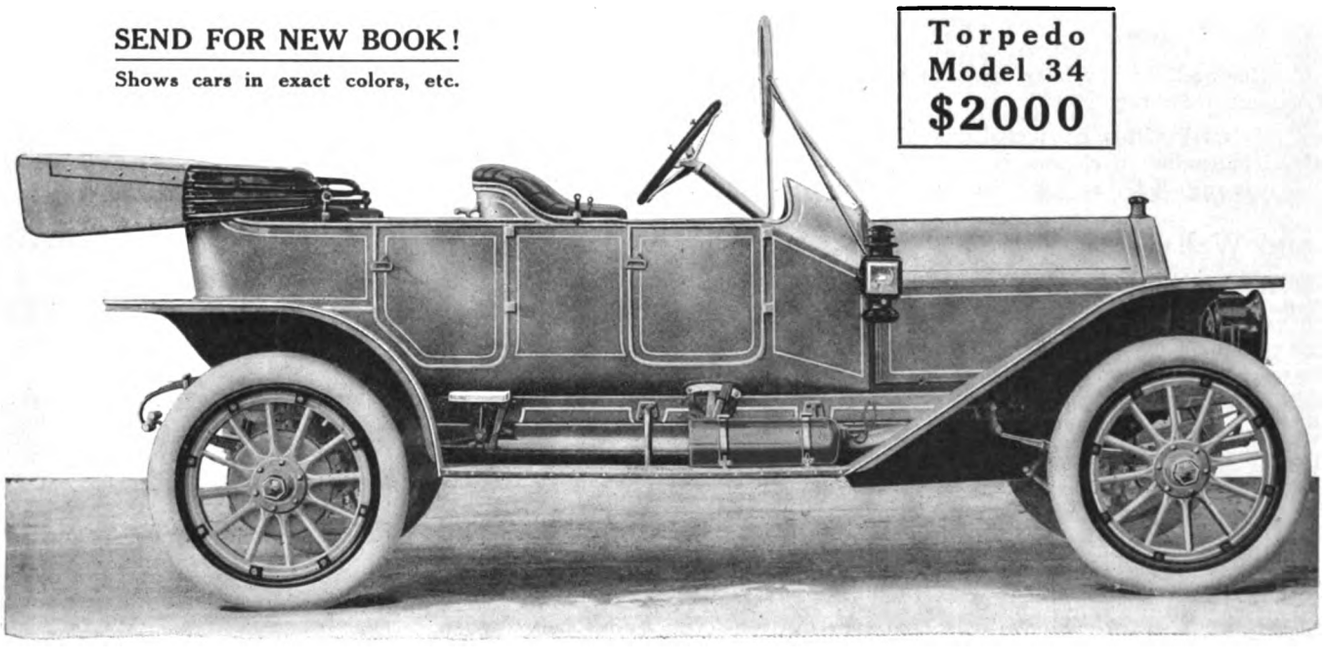
TO BUILD a motor car, reliable in every sense of the word, to build a car which will run silently and smoothly every day in the year, to eliminate the unnecessary expense of rapid deterioration and add wherever possible to the comfort and convenience of the passengers; these are the ideals to which the manufacturers of this car have devoted themselves. In short, to give perfect satisfaction.

AS PROOF of this, let us point to our lavish use of the best grade and highest priced materials, to our elaborate testing system and careful methods of inspection, and to our equipment with the most modern machinery and up-to-date facilities. These statements are amply supported by the testimony of thousands of satisfied Inter-State owners in all sections of the country.

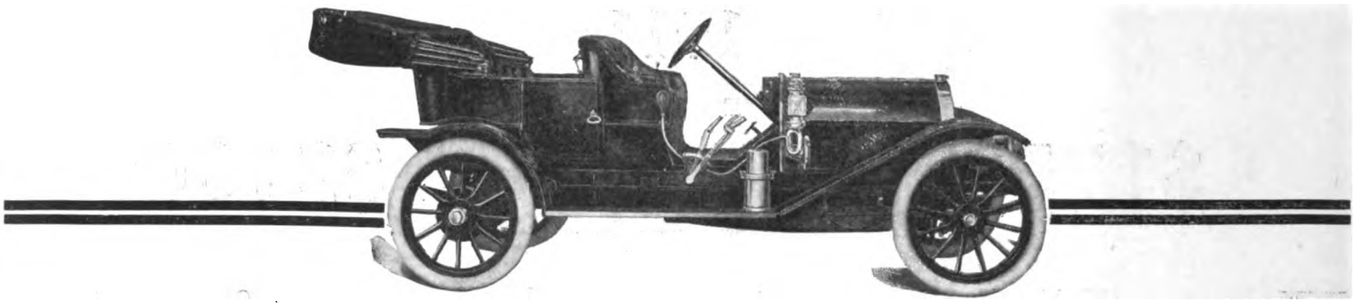
**INTER-STATE AUTOMOBILE COMPANY, Muncie, Ind.**

Licensed under Selden patent.

SEND FOR NEW BOOK!
Shows cars in exact colors, etc.




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# Another Big Triumph for the STAVER-CHICAGO

## First in the Engine-Efficiency Contest at Algonquin

The fifth annual hill-climbing contest of the Chicago Motor Club, held at Algonquin, Illinois, September 16—one of the severest engine-efficiency tests in the world—was won by a Staver-Chicago over a field containing cars priced up to $3,000.

What makes the victory more remarkable is that it was won under a handicap. The Chicago Motor club formula provides for the consideration of the cylinder displacement of the motor, the time consumed in the climb, and the weight of the car **with driver.**

We had to change drivers at the last minute, and the judges ruled that the weight of our driver could not be figured. The percentages of all the other cars were figured with the weight of the driver included. When the Staver-Chicago was so far ahead even with this handicap, think what it would have been on an even basis. Here is the official table:

| No. of Car | Name | Bore and Stroke | Cylinders | Percentage | Weight of Car only |
|---|---|---|---|---|---|
| No. 10 | **STAVER-CHICAGO** | 4 x 4 | 4 Cylinders | 7.41 | 2,640 |
| No. 15 | Marion | 4¼ x 4½ | 4 Cylinders | 8.00 | 2,590 |
| No. 11 | Velie | 4½ x 5¼ | 4 Cylinders | 8.22 | 2,800 |
| No. 7 | Parry | 4¼ x 4½ | 4 Cylinders | 8.39 | 2,140 |
| No. 1 | Brush | 4 x 5 | 1 Cylinder | 8.51 | 1,210 |
| No. 3 | Cartercar | 4 x 4 | 4 Cylinders | 8.59 | 2,015 |
| No. 17 | National | 5 x 5 11-16 | 4 Cylinders | 8.78 | 3,145 |
| No. 16 | Kissel | 4⅞ x 4¾ | 4 Cylinders | 8.85 | 3,135 |
| No. 12 | Jackson | 4⅞ x 4¾ | 4 Cylinders | 8.87 | 2,607 |
| No. 2 | Oakland | 4 x 4 | 4 Cylinders | 8.91 | 2,015 |
| No. 8 | Moline | 4 x 6 | 4 Cylinders | 9.03 | 2,645 |
| No. 4 | Cartercar | 4 x 4 | 4 Cylinders | 9.33 | 2,030 |
| No. 14 | Inter-State | 4½ x 5 | 4 Cylinders | 9.59 | 2,670 |

Engine-Efficiency is an essential of motor-car satisfaction; and the standard the Staver-Chicago has set in this respect is maintained throughout the car.

A test like this, conducted under such rigid rules, sweeps aside mere claims and shows up **facts**. And it is by **facts** alone, in engine, in chassis, in every detail of workmanship and material, that we wish the Staver-Chicago to be judged. For it is such judgments that have made the car a success.

**76th and Wallace Sts. STAVER CARRIAGE COMPANY CHICAGO, ILL.**

**DEALERS—Although Staver-Chicago territory is now pretty well taken up, we still have some good unoccupied sections to allot. Write us today for our plan and proposition; you cannot afford to miss it. It's different, it's profitable, and it's permanent.**

STAVER-CHICAGO

Full line of models—Touring, Torpedo, Baby Tonneau, Coupe, Roadster, Torpedo Roadster.

**30, 35, and 40 H. P.**
**$1,450 to $2,000**

STAVER-CHICAGO

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# National "40"

THE PROVEN

## Speedway King

(See Exhibit A)

THE PROVEN

## Long Distance King

(See Exhibit B)

THE PROVEN

## Hill Climb King

(See Exhibit C)

THE PROVEN

## Road King

(See Exhibit D)

**1911 PRICE** { Touring Car / Toy Tonneau / Speedway Roadster } **$2500**

FORE DOOR TOURING AND TOY TONNEAU **$2600**

See Exhibits A and B for a summary of all winnings at the four 1910 Speedway Meets. Atlanta May 5, 6, 7; Indianapolis May 27, 28, 30, July 1, 2, 4 and September 3, 5.

**The beauty, the elegance, the style of NATIONAL cars distinguish them no less than do their racing performances.**

**NATIONAL MOTOR VEHICLE CO.**
**1007 E. 22nd Street INDIANAPOLIS, IND.**

Licensed under Selden patent.

## EXHIBIT A

| | Firsts | Seconds | Thirds | Total |
|---|---|---|---|---|
| NATIONAL | 20 | 27 | 23 | 70 |
| Marmon | 11 | 12 | 9 | 32 |
| Marquette-Buick | 7 | 3 | 2 | 12 |
| Fiat | 6 | 2 | 3 | 11 |
| Herreshoff | 5 | 3 | 3 | 11 |
| Buick | 5 | 5 | 0 | 10 |
| Cole | 5 | 2 | 1 | 8 |
| Benz | 5 | 1 | 1 | 7 |
| Knox "60" | 3 | 0 | 0 | 3 |
| Alco "60" | 2 | 0 | 0 | 2 |
| Falcar | 1 | 3 | 3 | 7 |
| American | 1 | 3 | 1 | 5 |
| Firestone-Columbus | 1 | 1 | 2 | 4 |
| Simplex | 1 | 1 | 0 | 2 |
| McFarlan 6 | 1 | 0 | 3 | 4 |
| Mercedes | 1 | 0 | 1 | 2 |
| Stoddard-Dayton | 1 | 0 | 1 | 2 |
| Maytag | 1 | 0 | 0 | 1 |
| E-M-F | 0 | 2 | 4 | 6 |
| Jackson | 0 | 2 | 1 | 3 |
| Matheson 6 | 0 | 2 | 0 | 2 |
| Empire | 0 | 2 | 0 | 2 |
| Darracq | 0 | 2 | 0 | 2 |
| Staver | 0 | 1 | 1 | 2 |
| Speedwell | 0 | 0 | 1 | 1 |
| Great Western | 0 | 1 | 0 | 1 |
| Westcott | 0 | 1 | 0 | 1 |
| Cutting | 0 | 0 | 2 | 2 |
| Pope Hartford | 0 | 0 | 2 | 2 |
| Midland | 0 | 0 | 1 | 1 |
| Warren Detroit | 0 | 0 | 1 | 1 |
| Marion | 0 | 0 | 1 | 1 |
| Blackcrow | 0 | 0 | 1 | 1 |
| S P O | 0 | 0 | 1 | 1 |
| | 77 | 76 | 69 | 222 |

The above 70 places were all won by 4 cylinder 40 H. P. Nationals, except 1 first, 3 seconds and 3 thirds won by National sixes.

## EXHIBIT B

**LONG DISTANCE SPEEDWAY EVENTS.**

4—100 Miles, and 5—200 miles—Total 9.

| | Firsts | Seconds | Thirds | Total |
|---|---|---|---|---|
| NATIONAL "40" | 4 | 3 | 2 | 9 |
| Marmon | 3 | 1 | 2 | 6 |
| Marquette-Buick | 1 | 1 | 0 | 2 |
| Benz | 1 | 0 | 0 | 1 |
| Jackson | 0 | 1 | 1 | 2 |
| American | 0 | 1 | 0 | 1 |
| Westcott | 0 | 1 | 0 | 1 |
| Fiat "60" | 0 | 0 | 1 | 1 |
| Speedwell | 0 | 0 | 1 | 1 |
| McFarlan "6" | 0 | 0 | 1 | 1 |
| | 9 | 8 | 8 | 25 |

Above included in Exhibit A totals.

## EXHIBIT C

**ALGONQUIN HILL CLIMB.**

**September 16, 1910.**

**Seven Starts—NATIONAL 40 Seven Firsts.**

FREE-FOR-ALL—**NATIONAL 40** First.
CLASS B, Div. 5B, under 600 cubic inches—**NATIONAL 40** First.
CLASS B, Div. 4B, 301-450 cubic inches—**NATIONAL 40** First.
CLASS B, Div. 5B, 451-600 cubic inches—**NATIONAL 40** First.
CLASS B, Div. 6B, 501-750 cubic inches, **NATIONAL 40** First.
CLASS A, Div. 5A, $2001-$3000—**NATIONAL 40** First.
CLASS A, Div. 5A, $2001-$3000 Handicap—**NATIONAL 40** First.

## EXHIBIT D

**Elgin, Ill., August 26, 1910.**

**NATIONAL 40** (Al Livingstone) Won Illinois Trophy. Class B, Div. 4-B, 301-450 cu. in. 203 MILES WITHOUT A STOP in 201 min. 8.53 sec., averaging 60.6 miles per hour.

The first time in the history of American Motordom that a stock chassis WON A 200 MILE ROAD RACE WITHOUT A STOP. Arthur Greiner, driving his own car, the only other National entrant, finished fifth.

**ELGIN NATIONAL TROPHY RACE.**

**August 27, 1910.**

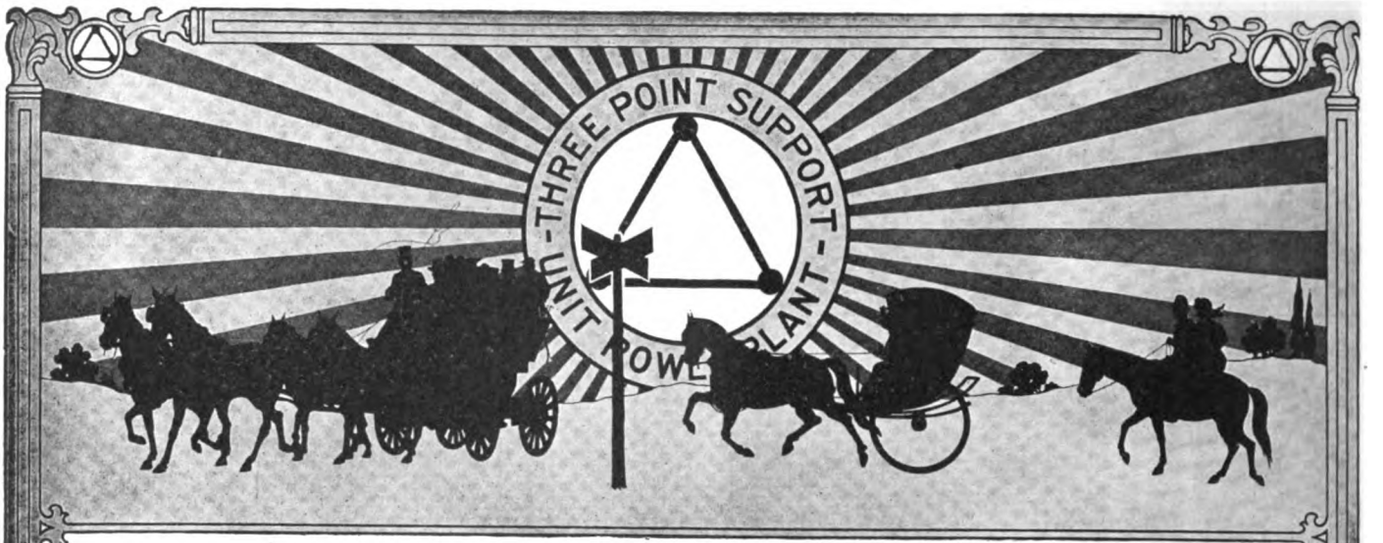
Class B Stock Chassis under 600 cu. in.

SECOND—**NATIONAL 40** (Livingstone) 305.03 miles in 304 minutes 10.9 seconds. An average of 60.2 miles per hour.

THIRD—**NATIONAL 40** (Greiner) 305.03 miles in 313 minutes.

Both Livingstone and Greiner drove the same cars both days, making an unequaled record for consistency and durability. Both cars finished the 508 miles in excellent condition and Livingstone averaged better than 60 miles per hour for the total distance.

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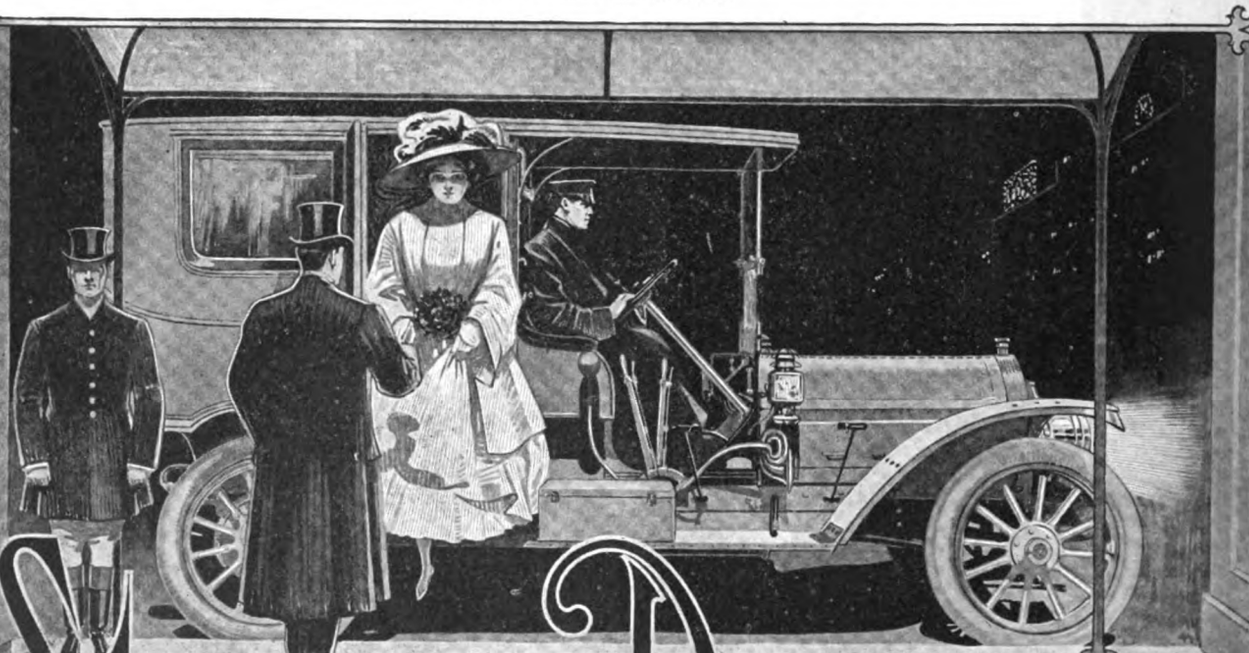

LIMOUSINE LUXURY

is epitomized in every detail of construction in Stevens-Duryea closed cars. From the 18th Century mode of conveyance to the 1911 Stevens-Duryea limousine is a far cry — all the intervening years progressed toward that perfect result.

¶OUR LITERATURE is convincing, informative — tells "How and Why." Mailed on request.

STEVENS-DURYEA COMPANY, Chicopee Falls, Mass.

Licensed under Selden patent.



Stevens-Duryea

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# AT YOUR SERVICE



## Our Engineering Department

is at the disposal of anyone, whether customer or not, for advice and suggestions as to the proper means of best meeting and taking care of any bearing applications.

We are daily making blue print lay-outs of various motor car bearing applications for foreign as well as domestic makers.

Ten years' constant study on this line of work has given our Engineering Department data and experience, of which the majority of prominent engineers avail themselves.

Your blue prints, sketches and data will be used for your benefit solely. Can we serve you?

## Timken Roller Bearing Co.

CANTON, OHIO


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# VICTORY

FOR

# DIEZEMANN "Two In One" CARBURETER

## THE WINNING COMBINATION

IN THE

## Great Elgin Road Race

WAS




**The Carbureter**

Note Mulford's time lap by lap—a remarkable record of consistent driving due to the wonderful Power Reserve, Flexibility and Uniform Mixture made possible by the DIEZEMANN CARBURETER. **Lap—8 Miles, 2,499 Feet**

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 8.18 | 8.00 | 8.00 | 8.07 | 8.12 | 8.07 | 8.09 | 8.04 | 8.06 | 8.06 | 8.01 | 8.00 | 7.55 | 7.59 | 8.03 | 8.01 | 8.01 | 8.00 |

| 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 8.01 | 7.59 | 7.56 | 7.54 | 7.56 | 8.18 | 9.46 | 8.06 | 8.09 | 8.10 | 8.05 | 8.02 | 8.09 | 8.07 | 8.14 | 8.15 | 8.08 | 8.05 |

Stopped for oil and gasoline at end of 24th lap.

**Highest Speed and Power**
**Lowest Speed Under Full Load**

**Instantaneous Response to Throttle**
**Greatest Economy Ever Known**

**Unquestionably THE CARBURETER of the Age**

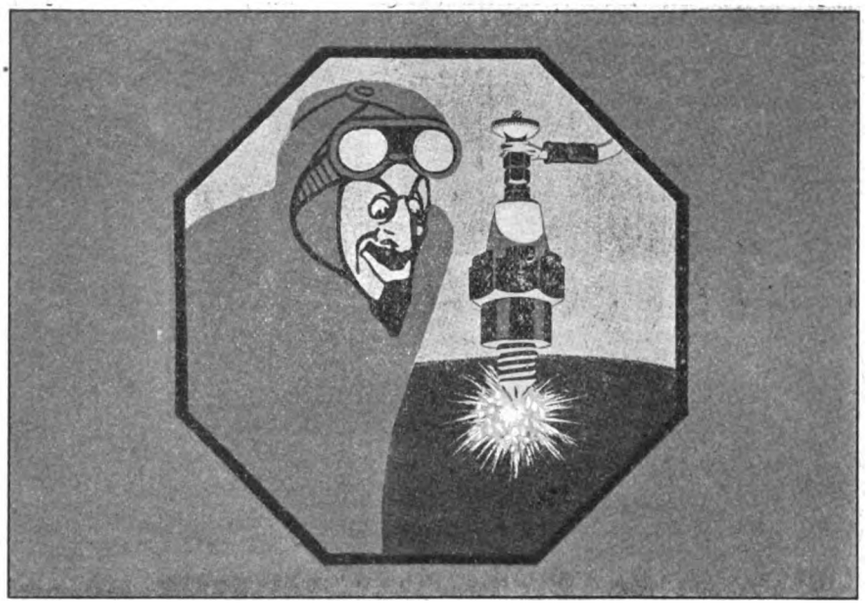
*Write at once for Descriptive Booklet "D."*

Made by
**THE STEVENS MANUFACTURING CO.**
Rome, N. Y.

Address all correspondence to
**THOMAS J. WETZEL, Selling Agent**
Phone, 278 Bryant — 17 West 42nd Street, New York

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# BOSCH PLUGS

**As Reliable as Bosch Magnetos**

# $1.00

**$10.80 the Dozen**
**In All Standard Threads**

**Write for our "Facts About Bosch Plugs for Magnetos and Battery."**

## BOSCH MAGNETO COMPANY

**223-225 West 46th Street, NEW YORK**
**SAN FRANCISCO: 357 Van Ness Avenue**
**CHICAGO: 119-121 East 24th Street**
**DETROIT: 878 Woodward Avenue**

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ELEVENTH INTERNATIONAL

# Automobile Show

WILL OPEN AT

GRAND CENTRAL PALACE

NEW YORK

## New Year's Eve, Dec. 31, 1910

and continue for one week

A THOROUGHLY up-to-date exhibit of American and Foreign pleasure cars and accessories. One whole floor devoted to American and Foreign commercial cars, which it is confidently believed will be the largest display of commercial cars ever seen in this country.

Sixty-five per cent. of all exhibit space has been contracted for.

The remainder will be alloted in order of receipt of application.

FOR INFORMATION ADDRESS

AMERICAN MOTOR CAR MFR'S EXHIBIT ASSOCIATION

Grand Central Palace, New York, N. Y.

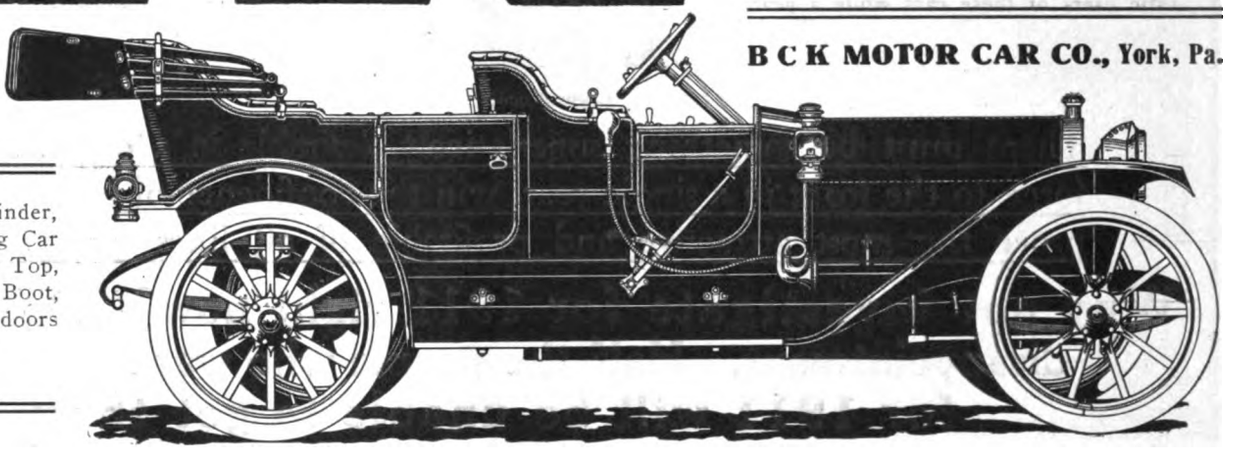
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# KLINE KAR 1911

**Cold Weather is the Coming Thing.**
**So are**
**Fore-Door Models the Coming Thing.**

**We offer Fore-Doors without extra cost.**

**B C K MOTOR CAR CO., York, Pa.**



Model 6-50, Six Cylinder, Five Passenger Touring Car complete with Mohair Top, Side Curtains and Dust Boot, option with or without doors

**$2700**

**JACOB G. SHIRK, Wholesale Tobacco Jobber, 19 West Chestnut Street.**

**One Reason why you should drive a** KLINE KAR

Lancaster, Pa., Sept. 16th, 1910.

B. C. K. MOTOR CAR CO., York, Pa.

Gentlemen:—The model 6-40 Toy Tonneau Kline-Kar which I purchased from your agent, S. E. Baily & Co., of Lancaster, Pa., April 1st, 1910, has proven itself to be the most satisfactory car I have ever had, and it would be absolutely impossible for me to give the car the praise it deserves. I have just returned from an extended tour into New England and Canada, covering in this trip about 2000 miles, and I am ready to take oath before a notary-public that during that trip I did not make any adjustments to the car or to the motor, not even to removing a spark plug. This record I think is remarkable, considering the bad roads the car had to plow through and the numerous difficulties met with on such a tour. If I would not have needed to raise my motor hood to put oil in the crank case I could have sealed the hood and kept the seals intact for the entire tour. Another remarkable thing about this tour was, that during the entire trip I only had one puncture and had the same casings on the car that I received with the car. Before this trip these casings had covered 3000 miles and after the 2000 miles of the trip, making 5000 miles in all, I fully believe that they are good for 2000 miles more. Thus the car is very easy on tires. Last year on a similar trip in another car I used up six casings. I am more than satisfied with my Kline-Kar and fully recommend it to anybody that desires to purchase a reliable, fast, powerful and well built car. Hoping to hear from you when the 1911 Kline-Kars are ready for the season, I remain,

Respectfully yours,
JACOB G. SHIRK.

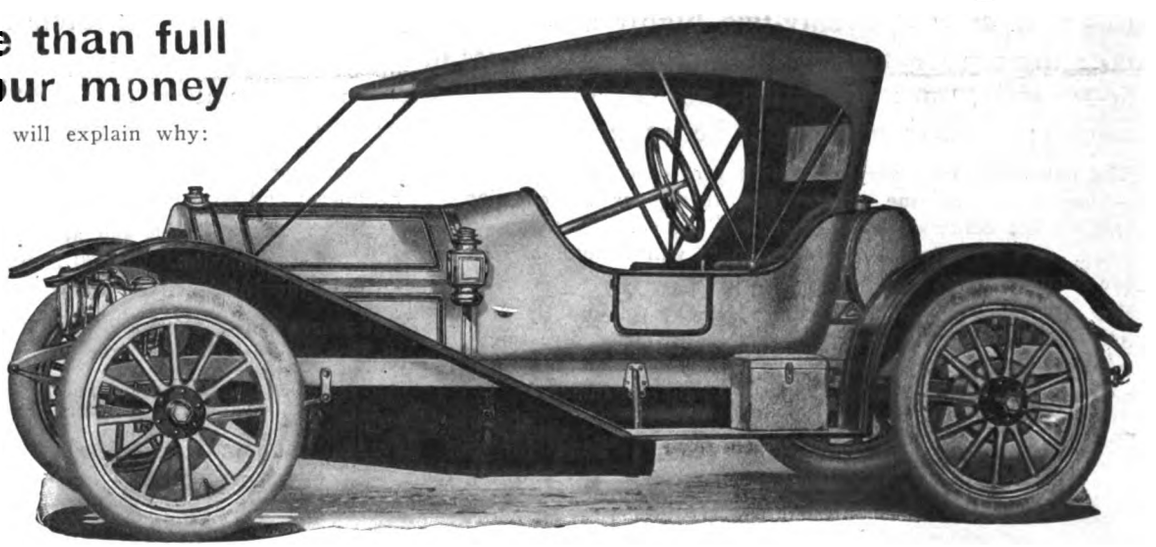
# THE DeTAMBLE The Quick-Selling Line

## A little more than full value for your money

The following reasons will explain why:

**MODEL "G"**
**DeTAMBLE SPECIAL**

36 H. P. Unit power plant. Three speed selective type sliding gear transmission. 112 in. Wheel Base. 34x3½ in. tires. Magneto dual system ignition. Full lamp equipment.



## Can You Beat It Under $1500?

The same specifications apply on the five-passenger touring cars except the wheel base is 115 in.

**Model "H" Standard Five-Passenger Touring Car $1150**

**Model "J" Five-Passenger Fore Door Touring Car $1200**

GOOD TERRITORY STILL OPEN.

**THE DeTAMBLE MOTORS CO., Anderson, Ind.**


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# An Entirely New Measure of Value in the Motor Car Industry Has Been Created by

More than 20,000 buyers are now enthusiastic users of these cars while a year ago there were but 4,000.

The Overland FOR 1911

Licensed under Selden patent.

More than 1,000 dealers are now selling these cars while a year ago there were barely 50.

There must be something superlatively desirable in a car that could forge to the front in a single year, win the confidence of its buyers, and prove the most attractive and profitable of all lines for its dealers.

## Why not investigate for 1911 right now? Delay means disappointment. Half the people who want Overlands for 1911 will be unable to get them.

We start this season with 20,000 Overlands in use and with deposits already in hand for more than 18,000 of the new models just coming out.

Every Overland owner who appears on the road creates a further demand for this wonderful car and this fact is due to sheer merit—nothing else. Up to 1910 the cars were never even advertised to any extent.

People who have never before thought of buying a car are buying Overlands, because they are the first really good cars at a reasonable price. People who have owned other makes are now selecting Overlands because of their mechanical excellence. They are exactly what the average man should own because so simply built, so readily understood and maintained.

22 four-cylinder models from 20 to 35 horsepower
from $775 to $1675, including magneto and lamp equipment

**All 1911 Models include fore doors, at your option, at one price**

The improvements this year are mainly in refinements of design. Our master designers have this year created twenty-two highly attractive models largely based on foreign trend. They will take their place among the most approved cars in the world. No cars are made at any price with better style, lines or finish; no cars offer such mechanical qualities for anywhere near the same money; no cars will render better service at any figure save possibly in excessive power.

The new Overlands are made with fore doors and without—your choice at one price. The fore door models, for which most makers charge extra, sell the same as the open front. We do this because fore doors will undoubtedly be the coming vogue.

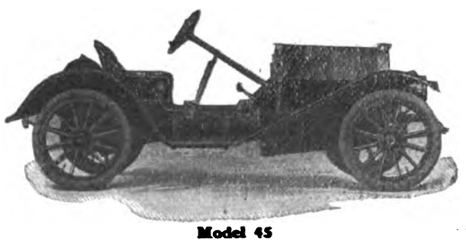
We will continue to manufacture five of the models produced in 1910, but, as the result of a large investment for new factory equipment, these five models as well as all new models, will be reduced in cost to the consumer.

Overland prices for 1911 begin at $775 for 20 h. p., four cylinders; and $850 for a Torpedo Roadster.

The 25 h. p. Overlands sell at $1000 to $1095 according to style of transmission. The 30 h. p. Overlands sell at $1250. So does the Inside Drive Coupe.

The prices run to $1600 and $1675 for the finest cars possible in 35 h. p. with 118 inch wheelbase.

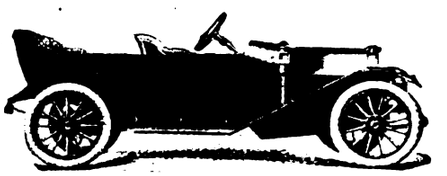
All prices include magneto and full lamp equipment.



Model 45

Send for our Advance Catalog showing the designs and specifications.

THE
**Willys-Overland Co.**
Toledo, Ohio
WEST CENTRAL AVENUE



Model 54

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THE MOTOR WORLD

Volume XXIV. New York, U. S. A., Thursday, September 29, 1910. No. 13

## CAN'T COMPEL PROFIT-SHARING

**Superintendent - Stockholder Tries to Do So by Receivership Proceedings but Fails—Wanted 900 Per Cent.**

Despite the application of George De Fevre, a stockholder and former superintendent, there will be no receiver appointed for the A-Z Co., of New York, nor will the courts assist de Fevre in holding his job.

The A-Z Co. manufactures radiators and other automobile parts, and has proven such a profitable institution that De Fevre considered that he was entitled to a share of the earnings. His demand being refused, he applied for the appointment of a receiver as one way of obtaining what he sought, but on Monday last, 26th inst., Justice Bijur, of the New York Supreme Court, denied the application. De Fevre also sought the court's aid to prevent his displacement as superintendent of the company, but Judge Bijur likewise refused to issue the injunction for which De Fevre prayed and which would have served this purpose.

De Fevre holds 150 shares of A-Z stock, the remaining 350 being held by James E. Woodbridge, president of the company, and by his son, Robert, who is secretary. In his petition the plaintiff alleged that they made 300 per cent. profit during each of the past three years, and demanded that he be paid 900 per cent. on his holdings valued at $1,500. The Woodbridges, he charged, had obtained large sums from the business, and are threatening to fix their salaries at $10,000 each per year, while he had to worry along on a wage of but $35 per week.

In their answer, the defendants said that De Fevre got all his stock free because of his knowledge of the business, and that he should consider himself fortunate to have secured ownership of fifteen-fortieths of the stock of a corporation which has assets of $60,000 and liabilities of less than $5,000 without contributing a cent to the capital. They admitted that the corporation has made money but denied that the profits amounted to 900 per cent. in three years. They declared they offered De Fevre $4,000 for stock having a par value of $1,500, and that the litigation was inspired by the hope of compelling them to purchase his stock at an exorbitant price.

The court accordingly dismissed the proceedings.

### Eagle Takes Over Grossman Business.

On October 1st the Eagle Co., of Newark, N. J., will take over the wind shield and spark plug business of the Emil Grossman Co., of New York, and, in fact, will take over Grossman himself; he will become sales manager of the Eagle Co. and continue to direct the marketing of the wind shield and the "Red Head" spark plug, which he so quickly made a factor in the trade. The Emil Grossman Co. will go into liquidation and wind up its affairs. As the Eagle Co. manufactured the wind shields and plugs for Grossman, its acquirement of the selling end of the business is not such a radical step as may appear on the surface. The Eagle Co. is controlled by the Standard Co., of Torrington, Conn., a concern of great strength and resources. The connection is so close that henceforth B. S. Keefer, secretary of the Torrington establishment, will spend several days of each week in Newark assisting the development of the spark plug and wind shield business, which it is the intention to expand on a large scale.

### Larzelere Forms Company to Build "Six."

H. B. Larzelere, for five years sales manager of the Chadwick Engineering Co., Pottstown, Pa., has resigned that position and organized the Nance Motor Car Co. in Philadelphia, of which he will be president and general manager. N. A. Adams, who also was connected with the Chadwick company, will be the sales manager of the new concern, which purposes producing a popular priced six cylinder car.

## SUES OAKLAND FOR ITS $85,000

**Pontiac Buggy Co. Wants Balance Due for Its Building—General Motors Involved as Oakland's Indorser.**

Because the Oakland Motor Car Co., of Pontiac, Mich., which is a part of the General Motors organization, has failed to pay the balance due of the agreed purchase price of a factory building which it bought from the Pontiac Buggy Co., the latter company has instituted suit in the Michigan courts for the amount unpaid, $85,000. The Oakland concern gave its notes for the amount of the purchase price, and as the General Motors Co. indorsed these notes it is made a co-defendant in the action.

While it was known that the Oakland company had not been traveling on the sunny side of Easy street, the filing of the suit caused some surprise, as the matter was viewed more or less in the light of a family affair, the Pontiac Buggy Co. having been owned by the late Edward Murphy and his associates who in turn formed the Oakland Motor Car Co. The building which was purchased from the Buggy company was of course made over to the General Motors Co. when the latter absorbed the Oakland establishment and the General Motors indorsed and became responsible for the notes which had been issued. It appears that the agreed price was $125,000, of which but $10,000 was paid in cash. Three notes of $10,000 each were promptly paid, but three others, two for $30,000 and one for $25,000, which fell due on the 10th inst., were not met and the prompt institution of the suit followed.

Since it was filed, Hal Smith, one of the new trustees of the Oakland Motor Car Co., has asked for a year's extension of the notes, and a meeting of the Pontiac Buggy Co. has been called to decide whether or not the favor shall be granted. The notes did not bear interest, the Oakland company paying rental in lieu of interest.

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## POPE'S PROSPEROUS CONDITION

**Annual Report Shows Handsome Increase of Sales and Profits—Good Example of Conservative Management.**

With a balance sheet showing sales amounting to $4,010,199.14, which netted a profit of $745,390.87, the annual report of the Pope Mfg. Co., Hartford, Conn., for the 12 months ending July 31, 1910, which just has been made public, should prove of steadying influence to the entire industry and serve to further dissipate the alarmist rumors which had been set afloat.

The Pope Mfg. Co. is one of those which "had been through the fire" and which had learned the effects of booms and the expensiveness of over-expansion, and its solid condition as disclosed by its report may be accepted as typical of the condition of practically all of the old and long established companies possessed of proud reputations and which have not permitted a display of industrial fireworks to lure them from conservative management.

The sales of the company represent an increase of $1,166,458.53 over the sales for the preceding twelve months, but even this satisfactory state of affairs is enhanced by the report of President Pope that the company has borrowed no money, nor has it given any promissory notes whatever during the year, having been able to take advantage of all cash discounts.

"The entire product of the company for the fiscal year was sold and delivered some weeks before the end of the period and no manufactured goods were carried over into the new fiscal year, leaving a very clean and most satisfactory inventory of merchandise on hand," continues Mr. Pope, who, with an eye to the future, adds:

"While the prospect for business for the new fiscal year is most encouraging, the management believes, in view of financial conditions throughout the country, that the conservative policy it has followed should be continued and no material expansion should be considered, and by keeping the affairs of the company well in hand, it can take care of as much business as its plants can produce, or contract its production, if conditions demand, to a point of economy and financial safety.

"During the year the company has acquired by purchase an additional manufacturing property in the city of Hartford, to which several manufacturing departments have been moved, giving much needed additional room for operations besides excellent shipping facilities by rail, which were lacking and much needed before the acquisition of this additional plant. The company now owns and operates three plants; the main factory and the West Works (the new plant) at Hartford, Conn., and a factory at Westfield, Mass., the two Hartford plants being entirely devoted to the manufacture of automobiles and the one at Westfield to the manufacture of bicycles and automobile bodies. During the previous two years the company had manufactured a portion of its automobile bodies but it has extended that branch of its business so that it is now manufacturing successfully and to the advantage and profit of the company all the bodies it requires.

"The manufacture of Public Service vehicles, such as ambulances, police patrol and fire emergency wagons referred to in our last fiscal report has increased and promises to be a considerable factor in the company's product in the future."

The Pope financial statement follows:

EARNINGS FOR YEAR ENDING JULY 31, 1910.

| | | | |
|---|---|---|---|
| Income from operations (after deducting manufacturing and producing costs, including charges for depreciation, current repairs, replacements and renewals to plant, administrative, office and selling expenses) | | | $664,496.35 |
| Add—Miscellaneous earnings, including discounts, interest and royalties received | | | 127,989.00 |
| | | | $792,485.35 |
| Deduct—Miscellaneous losses and expenses including discounts, provision for losses on bad and doubtful accounts, paid and accrued internal revenue tax on income | | | 47,094.48 |
| | | | $745,390.87 |

Assets.

| | | | |
|---|---|---|---|
| Real estate, buildings, plant, equipment, machinery, tools, patents, licenses and good will, July 31, 1909 | | $5,194,835.16 | |
| Add — Net Adjustments | | 50,767.37 | |
| | | $5,245,602.53 | |
| Deduct—Unoperated machinery and tools, sold or scrapped | | 2,207.97 | |
| | | $5,243,394.56 | |
| Add—Expenditures on additions and improvements, complete and in operation | $280,736.82 | | |
| In process of construction and installation | 54,114.28 | 334,851.10 | |
| | | | $5,578,245.66 |
| Deferred charges and prepaid expenses, including prepaid insurance and advance work on models for future production | | | 100,308.56 |
| Contract to be liquidated by deferred instalments | | | 190,871.41 |
| Inventories of materials, supplies, work in progress and finished product | | $854,660.45 | |
| Accounts and notes receivable (less reserves for bad and doubtful accounts) | | 273,578.60 | |
| Cash and cash items in bank and office, including accrued interest on bank deposits, and fund for payment of unclaimed dividends | | 557,945.09 | |
| | | | 1,686,184.14 |
| | | | $7,555,609.77 |

Liabilities.

| | | | |
|---|---|---|---|
| Capital stock—Authorized and issued: | | | |
| 25,000 shares preferred | $2,500,000.00 | | |
| 40,000 shares common | 4,000,000.00 | | |
| | | $6,500,000.00 | |
| Less—Stock held in treasury: | | | |
| 2,018 shares preferred | $201,800.00 | | |
| 3,092 shares common | 309,200.00 | | |
| | | 511,000.00 | |
| | | | $5,989,000.00 |
| Reserves for replacements and accrued renewals to plant | | $402,313.30 | |
| Reserves for current repairs | | 1,821.88 | |
| | | | 404,135.18 |
| Accounts payable, including accrued taxes, royalties, commissions and internal revenue tax on income | | 232,456.41 | |
| Pay rolls accrued | | 9,878.46 | |
| Deposits on orders | | 39,430.29 | |
| Unclaimed dividends | | 229.00 | |
| | | | 281,994.16 |
| Contingent liabilities | | | 20,276.80 |
| Surplus, July 31, 1909 | $482,866.76 | | |
| Net earnings for year ending July 31, 1910 | 745,390.87 | | |
| | | $1,228,257.63 | |
| Less—Dividends paid: | | | |
| On preferred stock for year ending July 31, 1909 | $137,892.00 | | |
| On preferred stock for year ending July 31, 1910 | 137,892.00 | | |
| On common stock | 92,270.00 | | |
| | | 368,054.00 | |
| | | | 860,203.63 |
| | | | $7,555,609.77 |

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## CHANGES AMONG THE TRADESMEN

**Charles R. Stevenson Becomes Secretary of Thomas Company—Fosdick Sales Manager for Fiat—Other Shifts.**

Charles R. Stevenson, formerly of New York, has been elected secretary and auditor of the E. R. Thomas Motor Co., of Buffalo, N. Y. He also has been elected a member of the executive committee and will become one of the directors of the company. Mr. Stevenson for the last seven years has been a member of the firm of Miller, Franklin & Stevenson, business economists and public accountants, and has had to do with the work of introducing advanced methods of accounting and manufacturing in over two hundred concerns in all lines of industry. Previous thereto he was assistant metallurgical engineer of the Homestead plant of the United States Steel Corporation.

Harry Fosdick, former secretary of the Hol-Tan Co., of New York, importers of the Lancia car, has been appointed sales manager of the Fiat Automobile Co., of Poughkeepsie, N. Y., with headquarters at 1786 Broadway, New York City. Fosdick is one of the real pioneers of the industry, his connection with it dating from 1899. He has had experience with both American and imported cars, his going to the Fiat being in the nature of a return to an early love. While he now will have to do with the American model, he handled the overseas production first as Boston agent and later as one of the headquarters staff in New York.

L. B. Sanders, manager of the Brush Chicago Motor Co., has been promoted to the post of district manager of the Brush Runabout Co. for the Middle West. His headquarters, however, will remain in Chicago. The vacancy in the local establishment caused by Sander's advancement has been filled by the appointment of P. J. Pollock, a Brush traveler.

H. H. Thorpe, sales manager of the Lion Motor Sales Co., Detroit, has resigned to take the Michigan state agency for the Van "22," a new car made at Grand Haven, Mich. He will be succeeded by Richard E. Fair, now manager for the western district for the Lion company.

Wiley F. West has been appointed manager of the St. Louis branch of the Firestone Tire & Rubber Co. He hails from Atlanta, Ga., where he managed the branch store of another tire company.

### Detroit Carburetter Concern in Trouble.

The Auto & Marine Appliance Co., of Detroit, Mich., which recently started business with a capitalization of $100,000, little or no ready cash, and a patent on a carburetter, is trying to adjust its difficulties in the bankruptcy court. The liabilities of the company amount to about $5,000, while the assets consist of some machinery, some finished carburetters and a contract with the Paige-Detroit Motor Car Co., calling for a supply of carburetters. All assets are tied up by a chattel mortgage and assignment to Sarah A. McLean and to the Michigan Lubricator Co., another creditor.

### Motor Car Equipment Changes Hands.

Emil Grossman, president of the Motor Car Equipment Co., New York, has disposed of his entire holdings in that concern and no longer is connected with it in any way. His interests were purchased by Walter M. Taussig and C. F. Wiebush, of the New York importing firm Wiebush & Hilger, Ltd., and by Carl Kaufman, the general manager of the Equipment company, of which Taussig has become president, Wiebush vice-president and Kaufman secretary and treasurer. Kaufman also retains the general management.

### Selden Suit Against DeDion-Bouton.

To the sixteen suits against importers for alleged infringement of the Selden patent, which were filed last week, the Association of Licensed Automobile Manufacturers has added another. This latest action is against the DeDion-Bouton Autoble Selling Branch and seeks an injunction, damages and profits. The suit is entitled: the Columbia Motor Car Co. and George B. Selden against Emanuel Lascaria, trading and doing business under the registered trade name of DeDion-Bouton Selling Branch.

### Regal Reaches Into Great Britain.

The Regal Motor Car Co. has joined in the "invasion" of Great Britain. It has placed the British agency with Seabrook Bros., of London, who have contracted for 350 Regal cars to be delivered during the 1911 season. The arrangement was effected by R. M. Lockwood, a New York export expert, who recently was engaged by the Regal company and who already has accounted for several other substantial orders in other parts of the world.

### Selden License Issued to Garford.

The executive committee of the Association of Licensed Automobile Manufacturers having approved its application, as the Motor World stated last week had been done, a Selden license formally has been issued to the Garford Co., of Elyria, Ohio. This brings the number of licensees to 83.

### Buick Branches Abandon Accessories.

The Buick branches no longer will handle accessories. Following orders from headquarters, they are disposing of their stocks on hand "at less than cost," according to the advertisement of one of the branches.

## FIXES STATUS OF LOCK WASHERS

**Appraisers' Decision on Hoffnung's Appeal —Assessed as "Washers," Not "Manufactures of Metal."**

In sustaining a protest filed by S. Hoffnung & Co. of New York, the Board of United States General Appraisers has decided that metal washers with an improved device to prevent the nut from slipping after it has been properly fastened are dutiable properly as "washers" under Paragraph 162 of the Tariff act of 1909 rather than as manufactures of metal not specially provided for in Paragraph 199 of the act.

The merchandise was invoiced as fast-nut washers, which were classified by the Custom House authorities as manufactures of metal, whereas the importing concern claimed that the articles are "washers" and properly dutiable at three-quarters of one cent per pound under Paragraph 162, which specifies "washers of wrought iron or steel." The question was raised at the hearing of the protest whether the articles are in fact "washers," and, secondly, whether if in fact "washers" they are not designed for use on automobiles and dutiable as parts of automobiles.

On this point General Appraiser Fischer rules that a patented metal washer, though it be used on automobiles, having no adaptation for that purpose, and in fact commonly and practically used otherwise, is dutiable as a "washer" rather than as "parts of automobiles." Discussing the question of the classification of the articles, the decision says in part:

"It is true that these articles are not the common washers well known to everybody, but they are nevertheless washers. They are intended for and in fact used only as washers, have always been so used, and differ from the old-fashioned article only in that they have an improved device to prevent the nut from slipping after it has been properly fastened. This extra device or improvement does not rob the article of its character as a washer, and the provision in the tariff for washers fully covers it. They fit the term as understood both commonly and in trade."

### Fire Destroys Salisbury Axle Factory.

The No. 2 factory of the Salisbury Wheel & Mfg. Co., at Jamestown, N. Y., was totally destroyed by fire Wednesday evening of last week, 21st inst., entailing a loss of $80,000. The plant, a four story structure devoted to the manufacture of front axles, will be rebuilt as soon as the insurance is adjusted. The Salisbury company, however, owns another factory in Greenville, Pa., which will permit its orders to be taken care of with comparatively little delay.

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## THE WEEK'S INCORPORATIONS.

Bangor, Pa.—Bangor Auto Co., under Pennsylvania laws, with $10,000 capital.

DuBois, Pa.—Motor & Supply Co., under Pennsylvania laws, with $25,000 capital.

Peoria, Ill.—Cummings-Rutherford Motor Car Co., under Illinois laws, with $5,000 capital.

Brooklyn, N. Y.—Simplica Automobile Co., under New York laws, with $2,000,000 capital.

Constantine, Mich.—Constantine Motor Castings Co., under Michigan laws, with $15,000.

Philadelphia, Pa.—Warrington Garage & Machine Works, under Pennsylvania laws, with $10,000 capital.

Waterville, Me.—Maine Supply & Garage Co., under Maine laws, with $200,000 capital. Corporators—Ansene Cailler and others.

Chicago, Ill.—Woodlawn Park Garage, under Illinois laws, with $5,000 capital. Corporators—V. B. King, A. Humphrey, E. J. Suhrs.

Detroit, Mich.—Horton Autoette Mfg. Co., under Michigan laws, with $100,000 capital; to manufacture automobiles and motor vehicles.

Chicago, Ill.—American Taxicab Co., under Illinois laws, with $16,000 capital. Corporators—W. Huttman, M. Niestrom, John A. Herrine.

Eaton, Ohio—Cyriaks Auto Co., under Ohio laws, with $15,000 capital. Corporators—F. R. Cyriaks, F. R. Christman, Rachel Christman.

Sewickley, Pa.—Sewickley Automobile Co., under Pennsylvania laws, with $5,000 capital. Corporators—A. F. Mohn, P. M. & M. P. Feltwell.

San Antonio, Tex.—San Antonio Motor Car Co., under Texas laws, with $15,000 capital. Corporators—W. Budd, Jr., L. R. Daniel, J. M. Lynch.

Toledo, Ohio—Warren Motor Sales Co., under Ohio laws, with $40,000 capital. Corporators—S. P. Holmes, C. E. Voan, John McKenna, J. J. Duck.

Newark, N. J.—Economy Auto Supply Co., under New Jersey laws, with $50,000 capital. Corporators—T. Kaplan, E. Elin, B. Miller, N. Salzman.

Indianapolis, Ind.—Phillips Demountable Rim Co., under Indiana laws, with $30,000 capital. Corporators—J. N. Crabb, W. A. Zumpfe, J. F. Messick.

Boston, Mass.—Motor Car Service of Boston, under Massachusetts laws, with $5,000 capital. Corporators—Frederick E. Dewey, J. Edward Lavell.

Memphis, Tenn.—H. A. White Auto Co., under Tennessee laws, with $40,000 capital. Corporators—H. A. White, F. M. White, A. B. Clapp, Jane H. White.

Brooklyn, N. Y.—Newkirk Garage & Taxicab Co., under New York laws, with $25,000 capital. Corporators—D. H. Spicer, W. L. Watson, F. A. Behrens.

Kansas City, Mo.—Case Auto Supply Co., under Missouri laws, with $5,000 capital. Corporators—R. H. Alexander, Belle S. Alexander, Christine Alexander.

Havre de Grace, Md.—Havre de Grace Automobile Co., under Maryland laws, with $3,000 capital. Corporators—M. Vandiver, Michael Fahey, Clarence Pussey.

Jersey City, N. J.—National Tire Fabric Co., under New Jersey laws, with $50,000 capital; to deal in patents, etc. Corporators—J. Sullivan, M. Bowan, D. Hogan.

Chicago, Ill.—Marion Motor Co. of Chicago, under Illinois laws, with $10,000 capital. Corporators—Robert E. Maypole, Alvar A. Landry, George F. Carpenter.

Carlisle, Pa.—Dillsburg & Wellsville Auto Co., under Pennsylvania laws; to operate automobile buses. Corporators—T. J. Seiple, R. L. Nesbit, Ed. W. Shapley and others.

Weatherley, Pa.—Miller Automobile Co., under Delaware laws, with $100,000 capital; to manufacture automobile trucks. Corporators—Stanley E. Oberrender, Dr. Jenkins, Charles Miller.

Columbus, Ohio—Columbus Motor Car Transportation Co., under Ohio laws, with $100,000 capital. Corporators—George W. Pope, James J. Liddy, M. J. O'Rourke, N. H. Wilson and others.

Indianapolis, Ind.—Commercial Car Sales Co., under Indiana laws, with $10,000 capital; to manufacture and deal in motor trucks. Corporators—B. S. Dean, Tillis Huff, Calvin Shoemaker.

Westerly, R. I.—Dual Tired Wheel Co., under Rhode Island laws, with $100,000 capital. Corporators—Herbert Stillman, Frank Hill, George B. Carpenter, Elisha C. Stillman, Samuel H. Davis.

Chicago, Ill.—American Taxi & Auto Owners' Protective Association, under Illinois laws, with no capital; for protective benefit. Corporators—Charles Roff, P. C. Kohler, E. M. Carew.

Newark, N. J.—Vroom & Co., under New Jersey laws, with $25,000 capital; to manufacture and deal in wagons and automobiles. Corporators—C. W. Smalley, William Ward, Peter Vroom.

Denver, Col.—Limon Auto Transportation Co., under Colorado laws, with $7,000 capital; to operate automobiles for public hire. Corporators—James W. Moorman, James M. Cochran, John H. Prewett.

White Plains, N. Y.—Ashco Mfg. Co., under New York laws, with $10,000 capital; to manufacture and deal in accessories for automobiles and bicycles. Corporators—C. S. Ashley, Robert W. Ashley, Alfred Streuli.

New York City, N. Y.—Hydraulic Oil Storage Co., of New York City, under New York laws, with $50,000 capital; to manufacture and sell appliances for the storage of oil, etc. Corporators—B. Clark, F. C. Leubuscher.

Augusta, Me.—National Boat & Engine Co., under Maine laws, with $10,000,000 capital; to erect and operate factories for the manufacture of power boats and vehicles of all kinds propelled by mechanical power. Corporators—R. S. Buzzell, M. M. Farrar.

### Increases of Capital.

St. Louis, Mo.—Victor Motor Car Co. increases capital from $30,000 to $150,000.

Detroit, Mich.—Edmunds & Jones Mfg. Co. increases capital from $25,000 to $50,000.

Detroit, Mich.—Paige-Detroit Motor Car Co. increases capital from $100,000 to $250,000.

Richmond, Ind.—Westcott Motor Car Co. increases capital from $100,000 to $250,000.

Detroit, Mich.—Michigan Motor Truck Co. increases capital from $1,000,000 to $1,100,000.

Detroit, Mich.—Hudson Motor Car Co. increases capital from $100,000 to $1,000,000.

### Recent Losses by Fire.

Philadelphia, Pa.—H. S. Groves' garage, 248 West Tulpehocken street; loss, $2,500.

Hyannis, Mass.—George P. Holbrook's garage, stable and a dwelling; total loss, $20,000.

North Andover, Mass.—Richard H. Russell's garage; building destroyed, five automobiles saved; loss, $2,500. Fully insured.

Sheldrake, Cayuga Co., N. Y.—Cram Garage and two automobiles destroyed. Loss, considerable. Cause said to be incendiary.

New York City, N. Y.—Boylston Garage, 142 East 41st street; building and 31 automobiles destroyed. Estimated loss, $200,000.

Denver, Col.—Denver Rubber Tire Works, 28 Colfax avenue; contents store rooms; loss, $5,000. Cause unknown. No insurance.

South Manchester, Conn.—Williard Hunt's garage; building damaged, one automobile destroyed; loss, $1,500. Cause unknown. Partly insured.

Boston, Mass.—James E. Wilbur, 299 Norfolk street; garage burned, automobiles saved. Loss, $1,000. Cause, leaking gasolene tank on one of the cars.

Trenton, N. J.—Frank Cook's garage, 38 South Olden avenue; building damaged, one automobile burnt; loss, over $4,000. Caused by explosion of lamp.

Peoria, Ill.—J. R. Harrison, 1601 North Adams street; garage damaged, one automobile destroyed; loss, $3,000. Leaking gasolene tank explosion was the cause.

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## IN THE RETAIL WORLD.

Matt Kerr, Archibald Gorman and Robert Kerr will open a garage in Stratford, S. D.

A. Hanson & Son, owners of a garage at Holdrege, Neb., have sold out to C. Engstrom.

Blough & Fisher are the proprietors of a new garage which just has been opened in La Grange, Ind.

The Milford Auto Machine Co. has purchased the Franklin Square Garage situated on Allen court, Worcester, Mass.

Harry Parker, of Cullman, Ala., has engaged in the automobile business. He has opened a garage on Main street.

H. D. Parks has purchased the City Garage in Springfield, Ill. He will continue the business under his own name.

R. C. Smith, of Washington, D. C., has secured the Overland agency for the city and established salesrooms at 829 14th street.

The Kelley Automobile Co., of Youngstown, Ohio, has opened its new garage at 221 Chapel place. It will specialize on electrics.

The Yorkville Auto Supply Co. has "opened up" at 1235 Lexington avenue, New York. Sidney Richmond is its owner and manager.

Huerth & Knipscheid is the style of a new firm which just has opened up in Sauk City, Wis. They will specialize in renting and repair work.

R. K. Luse and F. Rapp have opened a garage in the I. O. O. F. building at Oxford, Iowa. They will represent several makes of cars and will do general repair work.

A permit has been granted to J. L. Becker, of Syracuse, N. Y., to erect a garage at 209, 211, 213 Harrison street. The building is to cost, when complete, about $5,000.

The Standard Motor Car Co. has been organized by the members of the Riddell Auto Co., in Des Moines, Iowa, for the purpose of selling Patterson automobiles. E. A. Kiser will manage the company.

The King Motor Car Co. is the latest arrival among the automobile firms of Sacramento, Cal. Warren-Detroit and Inter-State cars will be shown at the salesrooms, which are located at 1207 11th street.

Earl Chambers, of the firm Chambers & Shea, Danville, Ill., has bought out his partner and will conduct the business hereafter in his own name. His garage is located at 27-31 North Walnut street.

The A. S. Johns Motor Car Co., which a few weeks ago was organized at San Antonio, Texas, has invaded Austin and established a branch house there. J. E. Faggard will be in charge of the Austin branch.

Work has been started on the erection of a garage at the corner of Moody and Alder streets, Waltham, Mass. E. C. Irish is building it with the intention of exhibiting Rambler cars in the building when completed.

Electric automobiles are to be featured at the new salesrooms and garage just opened at 1207-1211 Harmon place, Minneapolis, Minn., by the Electric Carriage & Battery Co. M. H. Hughes is president of the concern.

Bruce Rutherford, George E. Cummings and Howard Kinsey have formed a partnership under the style the Cummings-Rutherford Motor Car Co., with headquarters at 830 Main street, Peoria, Ill. They will handle Overland cars.

The Regal Garage Co. has been organized in Spokane to handle the Regal car in the eastern half of the state of Washington. Earl C. Finley is president and H. Preston secretary of the concern, which has taken 250 cars for its territory.

F. C. Hobbs, a machinist of Newark, N. J., has obtained the state agency for Pullman cars and leased the salesrooms now occupied by the Essex County Overland Co., at 211 Halsey street. He will have them ready for opening by November 1st.

The Elmore Auto Co., organized to handle Elmore cars in Des Moines, Ia., has opened up for business in temporary quarters at 614-616 Mulberry street. F. L. Kern, formerly secretary and treasurer of the Iowa Auto Club, is president of the company.

E. R. Wilson, formerly manager of the Paxton-Mitchell Co., has severed his relations with that concern and has formed the E. R. Wilson Automobile Co., with headquarters at 2010 Harney street, Omaha, Neb. Lexington cars will be his chief stock in trade.

The United Motor Charlotte Co., a subsidiary concern of the United States Motor Co., has established a branch in Asheville, N. C., of which J. H. Ham has been appointed manager. In addition to handling Maxwell and Columbus cars, the company will feature Sampson trucks.

Under the style the Bennett Motor Car Co. a new firm has been organized in Pittsburg, Pa., with W. W. Bennett, formerly manager of the Standard Automobile Co., of the same city, as president. Pope-Hartford cars will be featured in the salesroom of the new company, at 5904 Penn avenue.

Mayor Frank Walsh, of West Allis, Wis., finding his executive duties light, has entered the automobile business by purchase of the garage of the Stephenson Motor Car Co., located on Eighth street, Milwaukee, Wis. The repair shops connected with the garage are said to be the largest in the city.

Having outgrown its quarters at Atlantic and Bedford avenues, Brooklyn, N. Y., the Bruns Automobile Co. has taken the ground floor of the Cooper building, corner Bedford avenue and Fulton street. The salesrooms cover 5,000 feet of floor space, on which Chalmers-Detroit and Hudson cars will be featured.

A. M. Young, formerly a member of the firm of Bireley & Young, Columbia agents at Los Angeles, Cal., is to head a new organization which will handle the Thomas car. The new firm is to be called the Thomas Motor Car Co., and will occupy the building at 842 South Olive street as salesrooms and garage.

Glenn Frazelle, doing business in Springfield, Ohio, as the Frazelle Auto Co., has been petitioned into bankrupty. Among other things the petition charges that he is giving some creditors preference over others and that he is endeavoring to settle with his creditors for 25 cents on the dollar, while possessing sufficient assets to pay more.

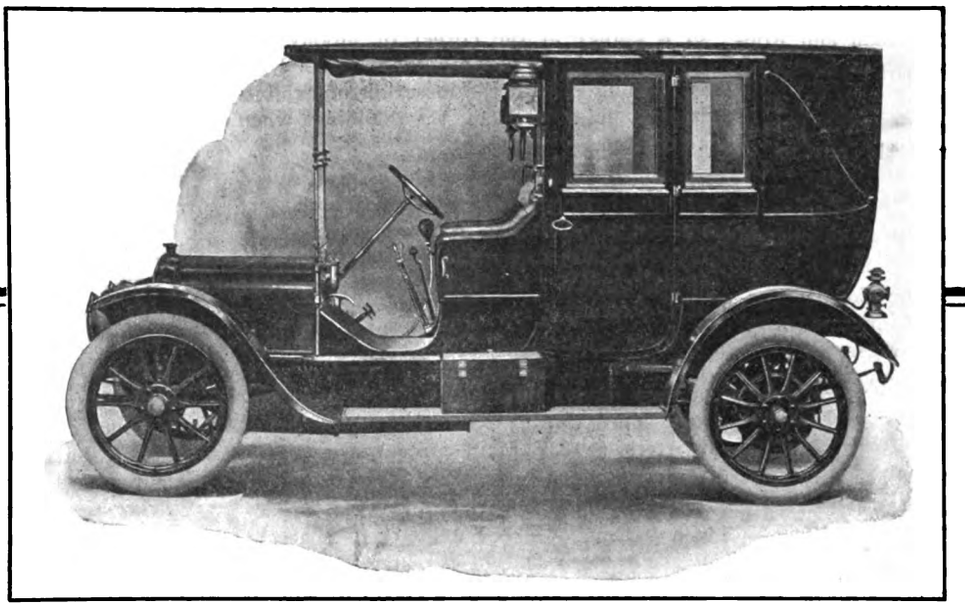
Franklin Leonard, Jr., has been appointed receiver of the Cloud-Marts Co., 1871 Broadway, New York City, selling agents for the Selden car, with a bond of $5,000, upon the voluntary petition of the directors of the company. The liabilities are $5,812; the assets, $5,543. The business was started in September, 1909, with a capital of $10,000.

Attorneys acting for nine creditors in Chicago, New York, Cleveland, Memphis and Newark, Ohio, have filed a petition in bankruptcy against the Cullen-Butler Auto Co., one of the pioneer automobile concerns of Memphis, Tenn. The extent of the liabilities has not been published, while assets are said to be large, including a handsome sales and garage building and numerous accounts.

R. H. Collins, manager of the Kansas City branch of the Buick Motor Co., has purchased the entire business of the Buick company in the Southwest territory, including all automobiles, notes, accounts, etc., and will conduct the firm's affairs hereafter under the style the R. H. Collins Motor Co. His territory includes western Missouri, Kansas, Oklahoma, Colorado, New Mexico and northern Texas. The company's headquarters are at the corner of Admiral boulevard and McGee street.

The Overland Sales Co., of New York, which was incorporated last week with $100,000 capital, has taken over the agency for the Overland car for the entire metropolitan district, previously held by George L. Reiss. The new concern, of which Thomas Silver is president and manager, has located at 1599-1601 Broadway, New York, where it occupies a two-story structure. Silver is well acquainted with the Overland product, having controlled the sub-agency for Brooklyn. Reiss, the former metropolitan agent, has taken on the Abbott-Detroit car.

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# The Arbiters of Elegance

WHAT the White Limousines are in their class, the White Landaulets are in theirs—the arbiters of elegance—the models—the patterns for correctness of style. The cars in which the subtle suggestion of graceful curves, the ensemble of harmonious lines, satisfies every sense of proportion.

The careful construction evident even in the most obscure details of these cars, makes them ideal town cars for practically all seasons of the year. Again, as the limousine, its size is greatly in its favor—not too large nor too small—massive and substantial-looking, yet not unwieldy. Because of its size it is easier on tires, and threads its way in and out among the larger vehicles of the crowded city, avoiding many of the delays of the more cumbersome cars.

It is convenient to enter or leave—in fact, satisfactory for shopping, theater, calling and the score of trips for which the city dweller needs a car. Richest leathers and handsomest broadcloths, cords, tapes, and every other detail, are of the kind found only in constructions as conscientious as the White. There can be no finer example of efficiency than the White Gasoline Landaulet—larger cars may be built, but none better.

Literature sent upon request.

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**830 EAST SEVENTY-NINTH STREET CLEVELAND, OHIO**

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THE MOTOR WORLD

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## The Grade Crossing Must Go!

Apparently in need of publicity to justify its existence and having nothing better to do, the chief, if not the only, factotum of Mr. Henry Clews's "National" Highway Protective Association has let it be known that he is preparing for submission to the next legislature of New York a bill requiring all automobilists and horsemen to come to a full stop before venturing upon any railway grade crossing within New York state.

In commenting on the proposal, the New York Times sagely remarks that "to enforce such a law would require the presence of a policeman at every grade crossing," and while asserting that "there can be no excuse for the negligence" of drivers who suffer death or injury at such crossings, the Times nevertheless declares what is perfectly obvious, i. e., that the way to make an end of such fatalities is to abolish the grade crossing.

While motorists and others who have had unpleasant experiences at grade crossings which do not permit a view of the railway tracks for more than eight or ten feet in either direction or with a quietly "coasting" locomotive or with trains that do not whistle or, if at all, that whistle only when practically upon the crossing—while such persons will incline to disagree with the notion that there can be no excuse for accidents at grade crossings there will be no disagreement with the opinion that the way to terminate such occurrences is to abolish the grade crossings. And it should be the part of every man, woman and child who travels the public highway to cry out for and to lend assistance to any movement that has for its purpose the abolishment of the death-traps. The toll of human life which they collect each year is too enormous to be much longer countenanced.

Motorists have been such numerous victims and their safety is so particularly menaced by the existence of grade crossings, that they have cause for leading a campaign that seeks to put an end to the peril. The New Jersey Automobile and Motor Club has taken the first step in that direction. It has sounded the slogan: "The grade crossing must go," and has sounded it often enough to awaken a few echoes, at least. The cry should be taken up in all directions.

Every automobile organization and every other organization with which automobilists have to do should pass resolutions to that effect and call on their legislature to enact the necessary remedy, and in every other way public sentiment should be aroused to such a point that neither law maker nor railway president may longer remain insensible to the pressure. It will take a long time to make any considerable impression, but a beginning may as well be made now.

Human life is more valuable than stock dividends. If it is necessary to save life, let the railways reduce their dividends.

The legislators who permit the erection of "Stop, Look and Listen" signs to shift the burden of responsibility onto the road user should be ousted from office. That game has been played too long. The grade crossing must go!

## Advance of the Automobile Fire Engine.

In connection with the growing adoption of automobile apparatus for fire department use, one telling argument for its economy should not be overlooked: Unlike horse drawn equipment its maintenance and operating cost depends directly upon the number of alarms to which it responds. This is one case in which the saying that the motor vehicle is cheap to maintain because "it does not have to be fed, rain or shine," is of real significance.

Ordinarily where horses are to be replaced by self-propelled vehicles calculation is based on continuous, or practically continuous, service during every working day. The saving effected by canceling the hay and grain bill thus is diminished by the constant use of fuel and oil. In the case of the fire department, however, the apparatus is idle save on the occasion of an alarm. Hence, as Chief Daggett, of Springfield, Mass., explains, "if a town has 1,000 fires a year there is naturally a great use of gasolene and hard usage on the machines. But in a town that has only 100 fires a year, there is but one-tenth of the expense per annum. Meanwhile, the saving for the small town is all the greater, because horses will eat all the year 'round whether there are 100 or 1,000 fires, and the horse-equipped departments become a proportionately greater expense on the community."

Barring this one argument, all other reasons why the automobile should be more effective in fire-fighting than the horse are of an obvious nature. Moreover, they are largely borne out by the facts, even considering that such experiments as have been, and now are being, conducted are at municipal expense, which is the same thing as saying great expense in many sad instances. The greater speed of the motor vehicle, its ever-ready and tireless qualities and the fact that it can be handled to better advantage in traffic would serve to bring about its general adoption in the course of time even without the added advantage of economy. That added factor is an argument that should not permit the horse to remain long in the service in which he has done such faithful and picturesque duty.

## Reducing the Risks of Fire.

Despite ample safeguards in the way of approved equipment for the handling of fuel and oils, the establishment of strict regulations by insurance underwriters and fire departments, and the wisdom of costly experience, possessed by more than one management, fire losses continue to levy a burdensome tax upon the profits of the

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garage business. Granted that the fire risk is high at best, because of the inflammable nature of materials handled and the fact that the fuel system of every car on the floor may be considered a potential cause of fire, it is unquestionable that the aggregate loss throughout the country is much higher than it should be, and it is high time that sweeping measures were taken by that contingent of the automobile industry that so stoutly avers its profits are so pitifully small to conserve a portion of its income by reducing such unnecessary losses.

Modern methods of combating fire losses are two-fold in their application. Means are taken to prevent the starting and to check the spread of fires by isolating inflammable materials as far as possible, and provision also is made to extinguish any fire as soon after it starts as may be. The first method largely is employed in the construction and equipment of up-to-date garages; the second, unfortunately, is not so generally carried out to its logical conclusion.

Beyond the establishment of the chemical extinguishers and water hose that the authorities prescribe, it is not customary to employ other systems which, in different sorts of establishments, are considered invaluable. One of the most important and obvious of these is the organization of employes into regular fire-fighting corps. To inaugurate such organization, establishing regular fire stations, a crew to each, and an alarm system, involves very little trouble in a business that already is well regulated. Moreover, it entails very slight expense, even counting the shop time lost by the occasional drills, which are an essential part of the system.

In stores, warehouses, public buildings and on steamships, where the risk is most perilous to life and limb, fire drill is an important co-ordinate of the thermostat and sprinkler systems in preventing the spread of fire. The same applies to many factories —and should apply to all those that might suffer serious damage from fire. Yet such an organization in a garage, where the risk is notoriously great, is practically unknown, strange as it may seem.

## COMING EVENTS

September 30-October 3, Minneapolis, Minn.—Automobile Club of Minneapolis third endurance run.

October 1, Springfield, Ill.—Automobile races at Illinois State Fair.

October 1, Peoria, Ill.—Automobile races at state fair.

October 1, Mineola, L. I.—Sixth annual Vanderbilt Cup race and Motor Parkway Sweepstakes on Long Island Motor Parkway, under the auspices of the Motor Cups Holding Co.

October 4-6, Kansas City, Mo.—P. O. P. races at Elm Ridge under auspices of Kansas City Automobile Dealers' Association.

October 6-7, Chicago, Ill.—Chicago Automobile Club-Chicago Athletic Association inter-club run for Myers trophy.

October 6-8, Santa Anna, Cal.—Automobile meet.

October 8, Richmond, Va.—Automobile races at state fair grounds.

October 8, Spokane, Wash.—Automobile meet at Interstate Fair.

October 8, Philadelphia, Pa.—Quaker City Motor Club's third annual 200 miles road race in Fairmount Park.

October 10-12, Amarillo, Tex.—Panhandle Fair Association's annual race meet.

October 10-15, Hot Springs, Ark.—Automobile races at Arkansas State Fair.

October 14-18, Washington, D. C.—Second annual Washington "Post" tour to Richmond, Va., and return.

October 15, Mineola, L. I.—Motor Cups Holding Co., 278 miles international road race on Motor Parkway, for the Grand Prize of the Automobile Club of America.

October 15, Chicago, Ill.—Chicago Motor Club's reliability contest.

October 15-16, Philadelphia, Pa.—Automobile Club of Philadelphia fall tour, Atlantic City and return.

October 21-22, Boston, Mass.—Boston "American" commercial vehicle contest.

October 24, Lawrence, Mass.—Automobile races.

October 27-29, Dallas, Tex.—Dallas Automobile Club's race meet.

October 28-29, New York City—Commercial vehicle test, under auspices New York American.

November 3-5, Atlanta, Ga.—Atlanta Automobile Association's fall meet on speedway.

November 5, Los Angeles, Cal.—Los Angeles-Phoenix (Ariz.) desert road race.

November 5-6, New Orleans, La.—Automobile meet.

November 7-11, Chicago, Ill.—Reliability contest under auspices Chicago Motor Club.

November 10-13, San Antonio, Texas—San Antonio Automobile Club's races at International Fair grounds

November 22-26, Lake Charles, La.—Louisiana Fair Association's race meet.

November 24, Redlands, Cal.—Mile High Hill Climb Association's contest.

November 24, Santa Monica, Cal.—Southern California Automobile Dealers' Association's annual road race; 200 miles.

November 24, Savannah, Ga.—Savannah Automobile Club's road race.

November 26-27, Los Angeles, Cal.—Motordrome races.

December 3-18, Paris, France—French Automobile Manufacturers' Salon in Grand Palais.

December 25-26, Los Angeles, Cal.—Races at Motordrome.

January 5-21, Detroit, Mich.—Detroit Automobile Dealers' Association's annual show in Wayne Pavilion.

January 7-14, New York City—Association of Licensed Automobile Manufacturers eleventh annual show in Madison Square Garden. Pleasure cars and accessories.

January 16-21, New York City—Association of Licensed Automobile Manufacturers eleventh annual show in Madison Square Garden. Second week devoted to commercial vehicles.

January 28-February 4, Chicago, Ill.—National Association of Automobile Manufacturers' tenth annual national show in Coliseum. Pleasure cars and accessories only.

February 6-11, Chicago, Ill.—National Association of Automobile Manufacturers' tenth national show in Coliseum. Second week devoted to pleasure and commercial cars, motorcycles and accessories.

March 4-11, Boston, Mass.—Boston Automobile Dealers' Association's annual show in Mechanics building.

March 15-18, Louisville, Ky.—Louisville Automobile Dealers' Association's annual show in First Regiment Armory.

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Among the most wonderful of modern marvels is the success which has been achieved in the introduction of exhaust turbines in large power units. The subject again is brought to notice by recent announcements to the effect that the capacity of the New York subway power plant has been doubled and the steam consumption per horsepower hour reduced by this means. The possibility of adapting the exhaust turbine to the small internal combustion engine already has engaged the attention of inventors, as has the internal combustion turbine as an independent prime mover. But it looks as though motorists who are determined to await the marketing of such ideal motors must still possess themselves of considerable patience.

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# FINE FIELD FOR SIXTH VANDERBILT

## Thirty Representative Contenders Ready for Daybreak Start on Saturday—Fifteen More in Line for the Lesser Events—Incidents of Final Preparations—Old-Time Interest Promises Large Crowd and Old-Time Scenes.

It looks as if the Vanderbilt Cup race has "come back."

For the first time since it ceased to be an international event, the air is surcharged with much of that keen interest and expectancy that marked the earlier events, and there is promise of the midnight and daybreak scenes and crowds—the family parties, the "souse" parties and the individuals—that rendered them so highly spectacular. There are those who profess to believe the attendance will approach that of the memorable years of 1904 and 1905, and that from 500,000 to 1,000,000 people will group themselves about the course on Long Island. But such estimates probably are born of great faith and unwonted enthusiasm. It appears certain, however, that the crowd will be larger than for several years and that it will be made up in large part of motorists and those interested in motoring.

The great outpourings of humanity in 1904 and 1905 are not likely to be repeated. In those years the race largely was a team race, with Germany pitted against France and America against them both, and the heated popular fancy was over-full of roaring red devils and hurtling death defiers, and the great green public fairly stampeded toward Long Island in its desire to witness the devilish doings and have its hair raised on end by the dalliances with death. The spectators expected that crimson gore would spurt like fountains from mangled flesh, and that metal parts of large snorting monsters would roar heavenward, many a time and oft.

Since then, however, the motor car has become a commonplace sight. It now is easy to hear red devils snort and Willie boys defy death on almost any well traveled highway, and perforce the great green public, which once lined the Vanderbilt course now flocks where fly the aeroplanes, the newest toys in their eyes and those which promise more thrills and gruesome happenings. That likely the possible quarter million or more people who may gather on Long Island next Saturday to witness the sixth Vanderbilt, not to mention the two minor events, will hear more snorts and see more cars "ripping it out," and "get a real run for their money," than ever before is well forecasted by the size of the entry list. There will be more cars contending for the big cup than ever before

### VANDERBILT CUP

**Prize—W. K. Vanderbilt, Jr., Trophy, $2,000 in Cash and Bronze Placque**
**For Cars in Class C (301-600 cu. in.)**
**278.08 Miles—22 Laps.**

| Car and Driver | Weight | Cylinder | Bore | Stroke | Displacement |
|---|---|---|---|---|---|
| American, William Wallace | 2600 | 4 | 5¾ | 5½ | 571.9 |
| Columbia, Harold Stone | .... | 4 | 4⅞ | 5½ | 410.6 |
| Marmon, Joe Dawson | 2200 | 4 | 4½ | 5 | 318. |
| Marmon, Ray Harroun | 2200 | 4 | 4½ - | 6½ - | 413.5 |
| Benz, Franz Heim | 2400 | 4 | 4 15-16 | 5⅞ | 448. |
| Benz, E. A. Hearne | 2400 | 4 | 4 15-16 | 5⅞ | 448. |
| Benz, D. Bruce-Brown | 2400 | 4 | 4 15-16 | 5⅞ | 448. |
| Alco, H. F. Grant | 2300 | 6 | 4⅜ | 5½ | 579.9 |
| PopeHartford, Jack Fleming | .... | 4 | 4¾ | 5½ | 389.9 |
| Pope-Hartford, Bert Dingley | .... | 4 | 4¾ | 5½ | 389.9 |
| National, John Aitken | 2650 | 4 | 5 | 5 11-16 | 446.7 |
| National, Al. Livingstone | 2650 | 4 | 5 | 5 11-16 | 446.7 |
| National, Louis A. Disbrow | 2650 | 4 | 5 | 5 11-16 | 446.7 |
| Corbin, Joe Matson | 2000 | 6 | 4½ | 4¼ | 405.6 |
| Amplex, Walter Jones | 3300 | 4 | 5 1-16 | 5 | 402.5 |
| Stoddard-Dayton, Tobin DeHymel | 2700 | 4 | 5¼ | 5¾ | 497.8 |
| Stoddard-Dayton, Hugh N. Harding | 2700 | 4 | 5¼ | 5¾ | 497.8 |
| Knox, Fred Belcher | 2910 | 6 | 5 | 4⅞ | 572. |
| Jackson, E. F. Scheifler | 2325 | 4 | 4⅞ | 4¾ | 354.7 |
| Mercedes, Spencer Wishart | 2650 | 4 | 5½ | 6 | 572.5 |
| Oldsmobile, Harry Stillman | 4000 | 4 | 5 | 6 | 471.2 |
| Oldsmobile, Joe Nelson | 4000 | 4 | 5 | 6 | 471.2 |
| Houpt-Rockwell, Carl Limberg | 2800 | 4 | 5½ | 6 | 570. |
| Simplex, Leland A. Mitchell | 3000 | 4 | 5¾ | 5¾ | 597.2 |
| Simplex, Ralph Beardsley | 3000 | 4 | 5¾ | 5¾ | 597.2 |
| Lozier, Ralph Mulford | 3300 | 4 | 5⅜ | 6 | 544.5 |
| Apperson, Harris N. Hanshue | .... | 4 | 5¾ | 5¾ | 597.2 |
| Marquette-Buick, Louis Chevrolet | .... | 4 | 6 | 5¼ | 593.7 |
| Marquette-Buick, Robert Burman | .... | 4 | 6 | 5¼ | 593.7 |
| Marquette-Buick, Arthur Chevrolet | .... | 4 | 5¾ | 5¾ | 597.2 |

### WHEATLEY HILLS SWEEPSTAKES

**Prize—Trophy and $1,000 in Cash**
**For Cars in Class 3-B (231 to 300 cu. in.)**
**189.6 Miles—15 Laps.**

| Car and Driver | Weight | Cylinder | Bore | Stroke | Displacement |
|---|---|---|---|---|---|
| Marmon, Henry Heinemann | .... | 4 | 4½ | 4½ | 286. |
| Marion, Marcel Basle | 1800 | 4 | 4¼ | 4½ | 255. |
| Mercer, E. H. Sherwood | 1800 | 4 | 4⅜ | 5 | 300. |
| Corbin, Alvin Maisonville | 1700 | 4 | 4½ | 4¼ | 270.4 |
| Correja, Montague Roberts | 1800 | 4 | 4¼ | 5 | 283.6 |
| S. P. O., John Juhasz | 1700 | 4 | 3⅞ | 5⅛ | 241.7 |
| Mercer, Charles Bigelow | 1600 | 4 | 4⅜ | 5 | 300. |
| Fal, W. H. Pearce | .... | | | | |
| Fal, J. F. Gelnaw | .... | | | | |

### MASSAPEQUA SWEEPSTAKES

**Prize—Trophy and $1,000 in Cash.**
**For Cars in Class 2-B (161 to 230 cu. in.)**
**126.4 Miles—10 Laps.**

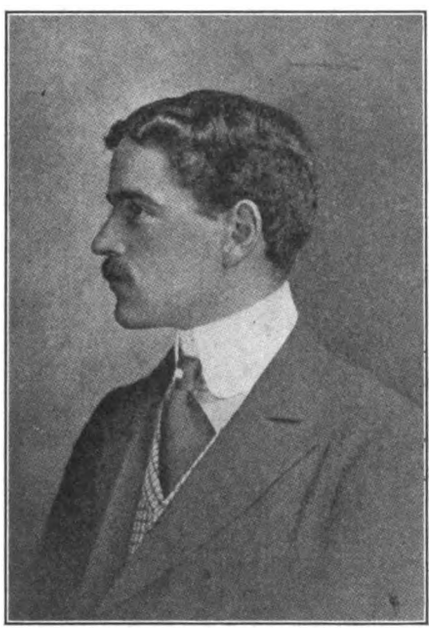
| Car and Driver | Weight | Cylinder | Bore | Stroke | Displacement |
|---|---|---|---|---|---|
| Lancia, William Knipper | .... | 4 | 3.937 | 4.33 | 210.8 |
| Cole, William Endicott | 1700 | 4 | 4 | 4 | 201. |
| Cole, Harry Endicott | 1700 | 4 | 4 | 4 | 201. |
| Abbott-Detroit, V. Padula | 1500 | 4 | 4 | 4¼ | 213.6 |
| Abbott-Detroit, Mortimer Roberts | 1500 | 4 | 4 | 4¼ | 213.6 |
| Abbott-Detroit, Lee Oldfield | 1500 | 4 | 4 | 4¼ | 213.6 |

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and the foreigners scarcely will be missed, although as a matter of fact there will be six imported cars in evidence; their drivers, however, will be, with one exception, home grown men.

There will be 30 contenders for the Vanderbilt cup. For the Wheatley Hills Sweepstakes—for the "big-little" cars—there are seven entrants. For the Massapequa sweepstakes for the "little fellows"—eight entrants are on the list, making a total of 45 cars which will be on the course at one time, by far the largest number that ever has competed in a road race in this country. The large number has required the building of 18 more repair pits in front of the grand stand.

Both cars and drivers are a thoroughly representative lot. All of the men who will hold steering wheels in Vanderbilt cup cars



W. K. VANDERBILT, JR.
The Donor of the Cup

are men with reputations and are as skilful as they are daring. Most of them have been cavorting around the course during the past week, and press agents have been kept busy weaving tall yarns about swift flights. It has been "press agents' week," but despite fast rounds credited to them the clocking was unofficial and signifies no more than it has signified in other years. It is, as usual, any man's race and, as always, consistent performance is more likely to earn the victory than is mere breakneck or skyrocket speed for one lap or for ten. Fast laps mean little if anything.

It was consistent driving that last year enabled Harry F. Grant to win the cup, and the same sort of work achieved the same result for George Robertson the year before. Grant, again in an Alco, will endeavor to repeat on Saturday, and Robertson also hoped to do so, but in a different car, a Benz. Robertson's hopes, however,

## THE CUP AND MEN LINKED WITH ITS HISTORY



GEORGE ROBERTSON
The First American Who Won the Cup



THE VANDERBILT CUP



HARRY A. GRANT (ALCO)
The Present Holder of the Cup

literally were dashed to earth on Friday last. In a tryout on the course he turned a corner too swiftly or too sharply and was spilled out. The damage to the car will be repaired, but Robertson, at first made the victim of alarming rumors, was so badly muscle-strained that driving any car is out of the question for him. He has been replaced by Franz Heim, a tester from the Benz factory and a German to delight the heart of the Kaiser. Walter Jones and the Amplex also had a close call. A motorcyclist ventured on the parkway and was riding the wrong way of the course, in defiance of all rules and reason, and Jones in endeavoring to avoid him turned over. Both Jones and the car were badly bruised, but not vitally hurt, and both are expected to be in trim for the race on Saturday.

The only other accident incident to prac-

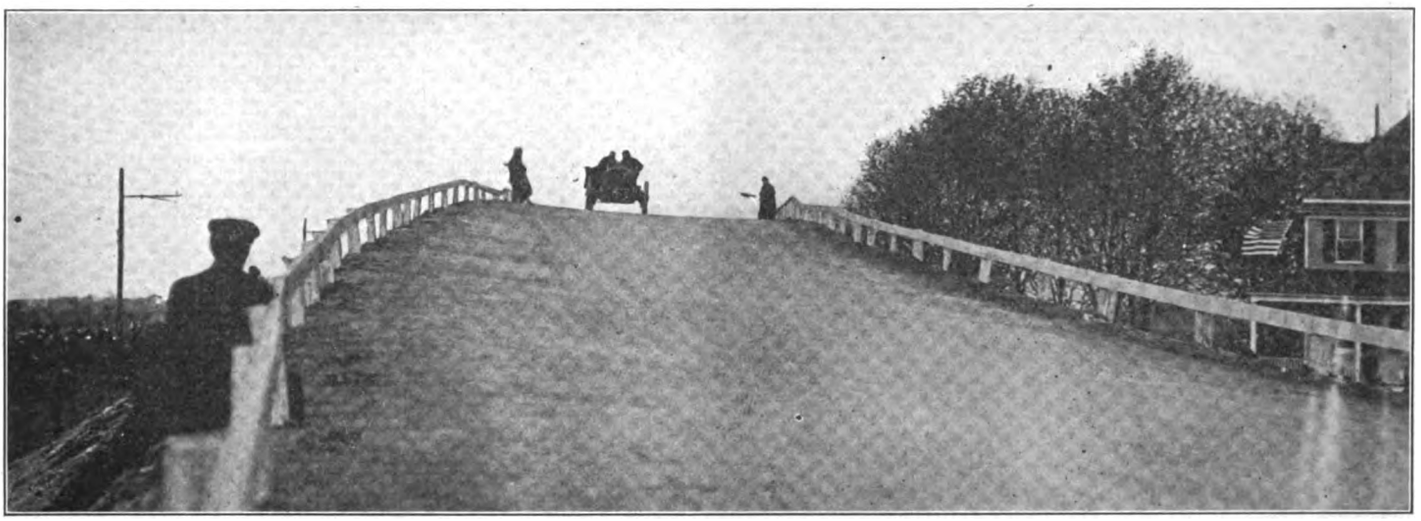


A. R. PARDINGTON
Manager Long Island Motor Parkway

tice work befell one of the entrants in the Massapequa Sweepstakes, William Knipper and his Lancia. He had overtaken Burman driving a Marquette-Buick and seemingly was about to pass him when the cars apparently touched hubs and Knipper and his assistant went sailing through space. Miraculously they escaped serious injury, and the damage to the car looked worse than proved to be the case. It will be repaired and a picturesque feature of the day thus be preserved, for with its torpedolike prow and unusual seating arrangement the Lancia easily is the most picturesque car that has entered the lists. In the accident Burman escaped with a bad fright and the loss of a hub cap. His fright was due not merely to the shock of collision but to what he thought he saw flying through the air. In his confused state of mind, he fancied that Knipper had been split in twain.

The course is the same as was used last-

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ONE OF THE "JUMPING-OFF PLACES" ON THE PARKWAY THAT MAKE THE DRIVERS' WORK INTERESTING

year, and is an irregular triangle of 12.64 miles, about one-third of which is the cemented surface of the Long Island Motor Parkway; the remainder is oiled country road, which just now is distinguished by a long succession of signs: "Parking Space To Let." Every front yard and every cabbage patch on the route is displaying the sign. It is the natural successor of the "Private Grandstand," which was so numerous in former years and which steeped so many Long Island fingers in financial loss.

So far as concerns the parkway, the course is hard and smooth but suggestively narrow; the country roads are wider, but of course not nearly so smooth. There is some rough going and not a few soft spots, and the corners are badly cut up; in fact, some of the intending competitors are complaining of its lack of condition, and despite reports of private lap trials at better than 70 miles per hour, it does not appear probable that much better than 60 or 61 m. p. h. for the full distance will be made in the big race itself. The Vanderbilt will go 22 laps or 278.08 miles; the Wheatley Hills, 15 laps or 189.6 miles, and the Massapequa ten laps or 126.4 miles. The utter lack of anything suggestive of a hill is the one element of the course. All the grades are gentle ones.

**PREVIOUS WINNERS OF VANDERBILT CUP RACES.**

**1904.**
**George Heath, Panhard car.**
**Average speed, 52 miles an hour.**

**1905.**
**Victory Hemery, Darracq car.**
**Average speed, 61½ miles an hour.**

**1906.**
**Louis Wagner, Darracq car.**
**Average speed, 61.4 miles an hour.**

**1907.**
**No Race.**

**1908.**
**George Robertson, Locomobile car.**
**Average speed, 64.3 miles an hour.**
**(Record.)**

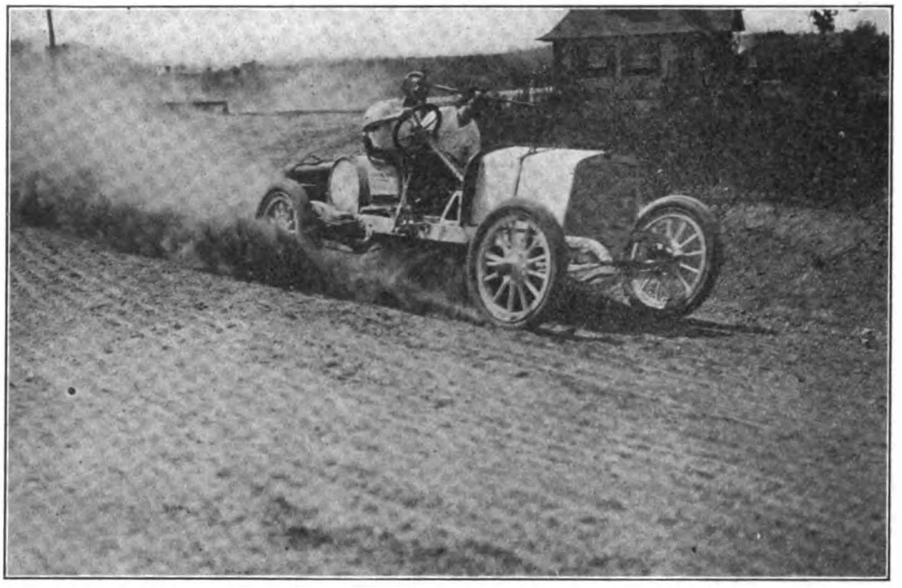
**1909.**
**Harry F. Grant, Alco car.**
**Average speed, 62. 8 miles an hour.**

The manner of conducting the three races will differ from last year's practice. Then the contenders in the Massapequa and the Wheatley Hills were started first at intervals of a few seconds and immediately were followed by the starters in the cup race. As a result there was a large number of cars on the course in the early hours and distressingly few when the Vanderbilt itself was concluded. On Saturday, however, the Vanderbilt cars will be sent away first; about an hour later the Wheatley Hills contenders will be given the word and after another lapse of about the same duration the littlest cars in the littlest race, the Massapequa, will be started. This procedure, it is hoped, will result in a bunched finish and serve to sustain interest to the end. It undoubtedly will lead to confusion of the three events, and the contenders in each, but if it serves to prevent the weari-



GENERAL VIEW SHOWING THE MOTOR PARKWAY WINDING OVER HEMPSTEAD PLAINS

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ROUNDING THE MASSAPEQUA TURN IN PRACTICE

someness of a year ago, it will not have proved wholly in vain.

For the first time, the cars will not "weigh in." Instead, their specifications have been verified by the technical committee, but the declared weights of the entrants are being accepted without question.

The order in which the cars will be started will be settled tomorrow when the drawing takes place, the numbers which they have carried in practice being merely their entry numbers. By leaving the drawing for positions and the numbering of the cars until the eleventh hour the sale of the official program is enhanced and the printing of a flood of "phony" programs is prevented.

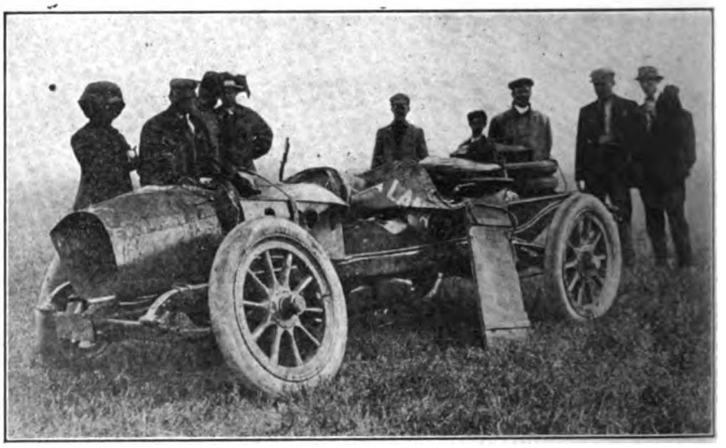
As usual, W. K. Vanderbilt, Jr., will referee the races, and Fred J. Wagner do the starting. The other officials will be as follows: Judges, Henry Sanderson, Colgate Hoyt, Dave Hennen Morris, Robert Lee Morrell and Samuel M. Butler; technical committee, A. L. McMurtry, Henry Souther and Alexander Churchward; A. A. A. representative, Frank G. Webb; assistant to the president, A. R. Pardington.

The race will be started at daybreak or as soon thereafter as the mist, which usually marks the rise of night's curtain on Long Island, permits. The first car may be sent away at 6 o'clock; more likely it will be later.

"At frequent intervals between 2 a. m. and 4:50 a. m.," to quote its official announcement, the Long Island railroad will run "special trains" direct to the grandstand. They will start from the new Pennsylvania railroad station at Seventh avenue and 33d street, New York, and all passengers will be afforded the disgusting experience of changing trains at Jamaica. Only special excursion tickets will be honored on these special trains, which probably will start at those "frequent intervals" when the cars are filled and which will reach the grand stand only the Lord knows when, if past experience means anything. In previous years, some of these "special trains" made the 20 miles journey in the swift time of three or four hours and landed the passengers at their destination in time to see the finish of the race, at least.

The management of the race has issued several "recommended routes" for those who purpose going to the scene in automobiles. The route recommended from New York is the one via the Queensboro (59th





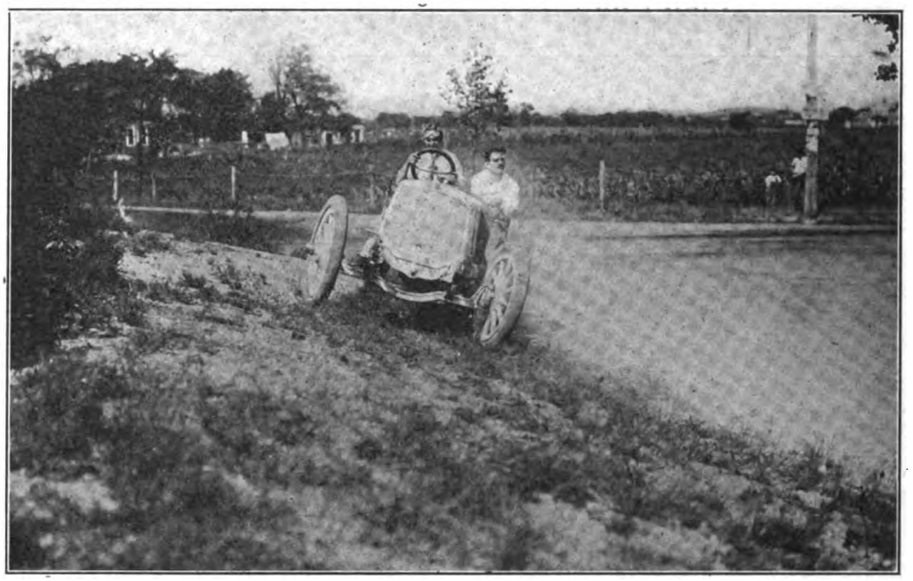
INCIDENTS OF PRACTICE WORK—ROBERTSON'S BENZ AND KNIPPER'S LANCIA AFTER THEIR SPILLS




E. F. SCHEIFLER (JACKSON) NEGOTIATING A SHARP ANGLE

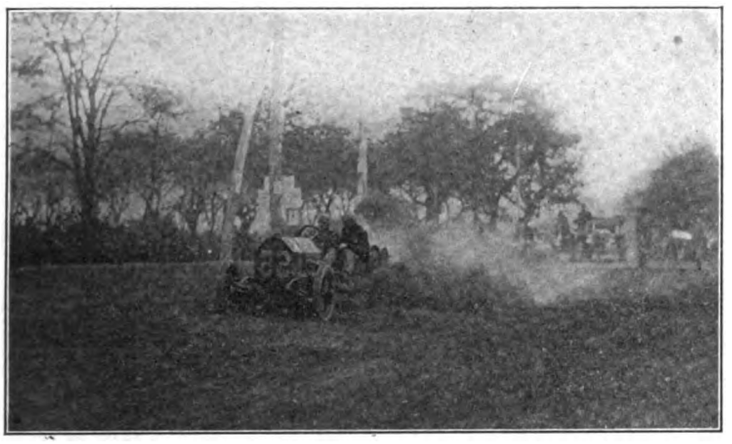
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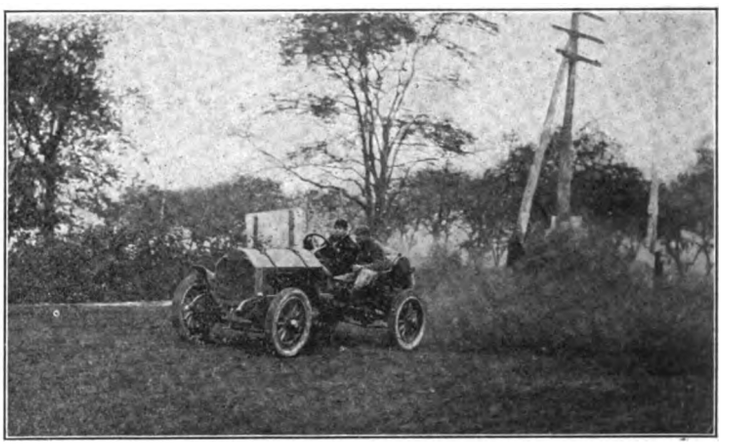
street) bridge and Hoffman boulevard, which undoubtedly is the most direct and most traveled route, but Hoffman boulevard is narrow and full of holes and there is deep sand on both sides of the roadway and it generally is in such a condition that New Yorkers who do not desire to invite accident in the congestion of cars—many of them sure to contain "souse parties"—which is certain to ensue in the dark and early hours of Saturday, will be wise to avoid the Queensboro bridge—Hoffman boulevard route and go via the Williamsburg (Delancey street) bridge to Brooklyn and thence to Bedford avenue, to Eastern parkway, to Jamaica avenue, and continue straight into Jamaica, where Hillside avenue and the "recommended route" beyond can be followed. Not all of Jamaica avenue is in good condition, but the street car tracks are available, and by not making the detour via Ridgewood avenue and Rockaway road, familiar to Brooklynites, the stranger is likely to escape a number of confusing turns.



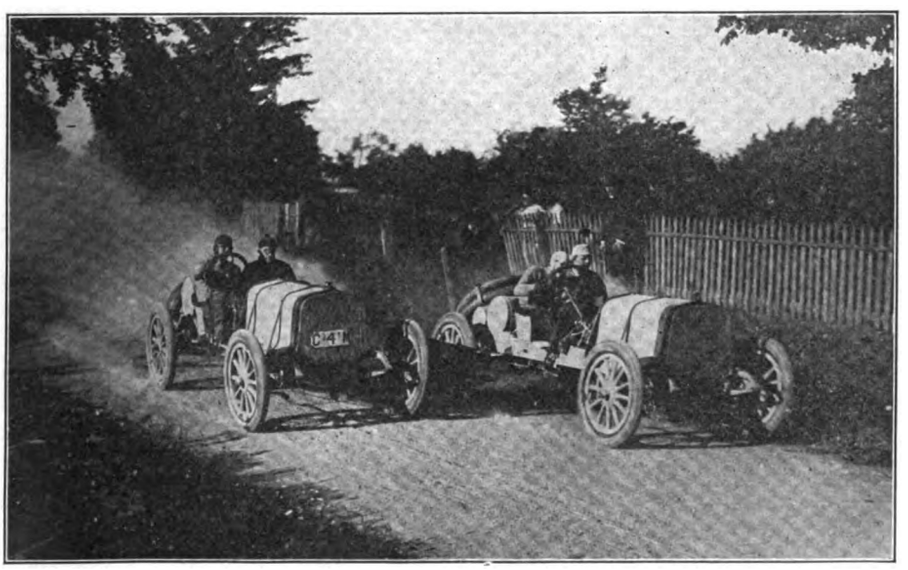
POSSIBILITIES OF THE WESTBURY TURN

The "recommended route" from New York to the official grand stand is as follows: Cross Queensboro bridge from foot of 59th street to Long Island City, turn right to Crescent street, to end of street, turning left at parked section of cross street. Proceed over Jackson avenue to approach to Thompson County Court House on the right. Cross viaduct into Thompson avenue. Follow Thompson avenue into Hoffman boulevard, follow Hoffman boulevard to Hillside avenue, turning left at Disbrow's garage. From this point the route is identical with that from Brooklyn. Note—Motorists from New Jersey should take Pennsylvania ferry at Jersey City to 23d street, Manhattan, turning left to 34th or 35th street, thence crossing the city, and proceed to Queensboro bridge, foot of 59th street.





SCENES IN PRACTICE—DAWSON MEASURING MARMON METTLE AND BELCHER TESTING THE KNOX



MATSON AND MAISONVILLE TESTING THE CORBINS ON THE COURSE

The "recommended route" for motor cars from Brooklyn to the official grand stand is: Leave Long Island Automobile Club at main entrance to Prospect Park, Eastern parkway to Bushwick avenue, turn right; Bushwick avenue to Highland boulevard, turn left (brick pavement); Highland boulevard, passing reservoir, down hill, to Fulton street. Cross trolley tracks into Dresden street. Turn left on Ridgewood avenue, following Ridgewood avenue, under elevated railroad to end of street. Turn right one block. Turn left on Rockaway road (macadam), crossing Long Island railroad

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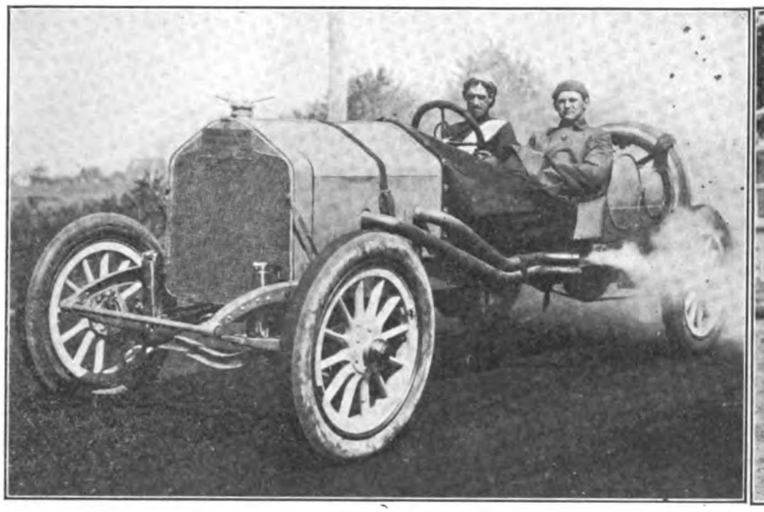
EIGHT OF THE DRIVERS WHO WILL COMPETE FOR THE VANDERBILT CUP



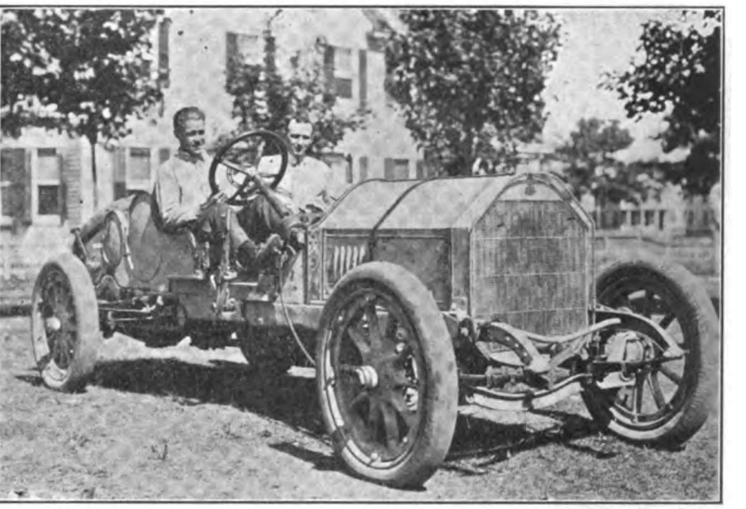
1—L. A. MITCHELL, SIMPLEX
2—H. M. STILLMAN, OLDSMOBILE
3—RAY W. HARROUN, MARMON
4—HUGH N. HARDING, STODDARD-DAYTON
5—LOUIS CHEVROLET, MARQUETTE-BUICK
6—AL LIVINGSTONE, NATIONAL
7—JOHN AITKEN, NATIONAL
8—J. M. MATSON, CORBIN

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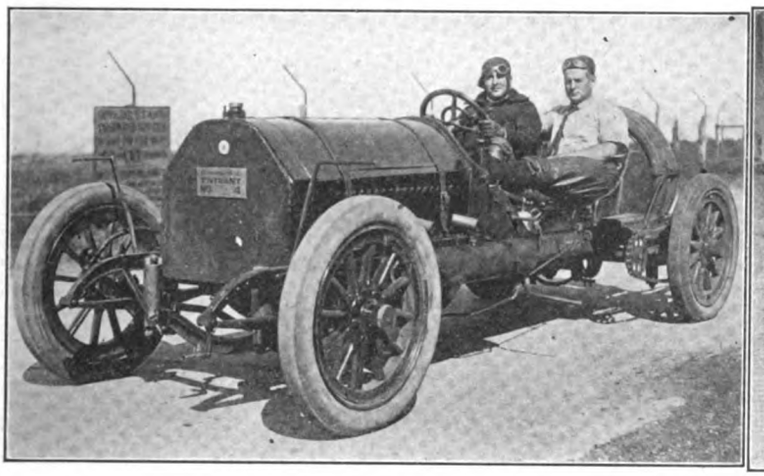
## FOUR OF THE LIKELY CANDIDATES FOR THE CUP AND THE CARS THEY WILL DRIVE



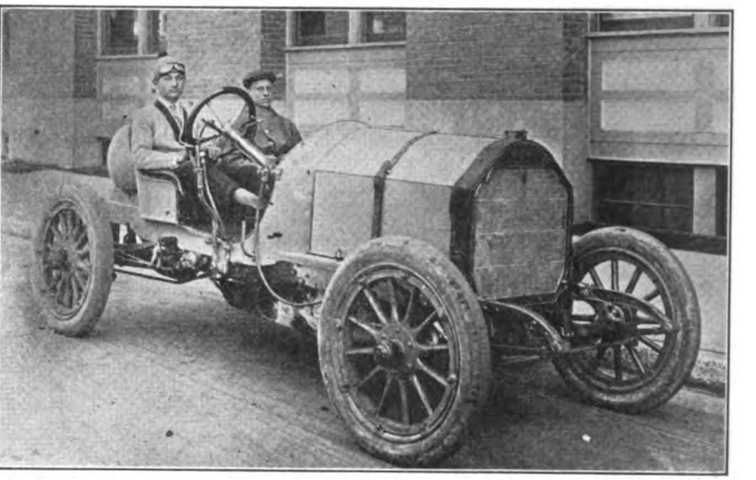
LOUIS A. DISBROW, ONE OF THE NATIONAL TEAM



WALTER JONES IN THE TWO-CYCLE AMPLEX

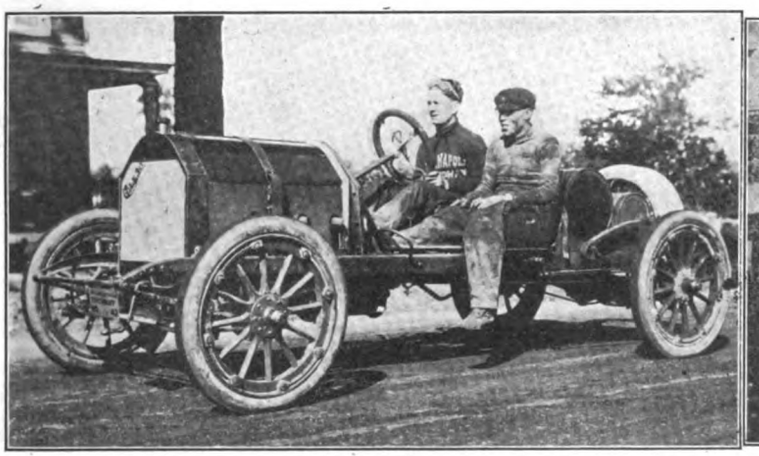


HARRY F. GRANT (ALCO), WINNER OF LAST YEAR'S RACE

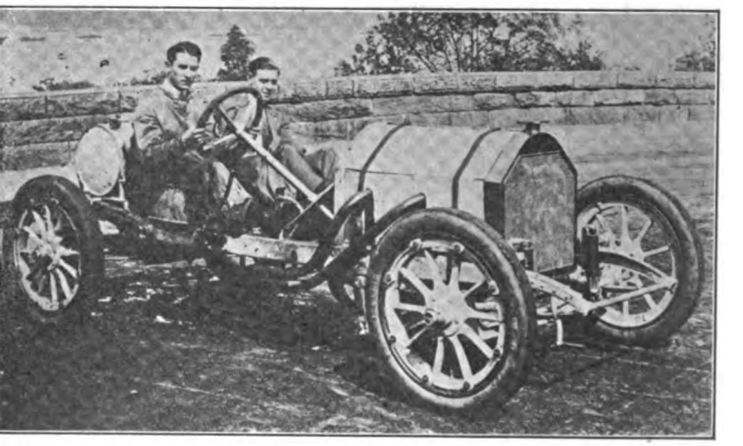


TOBIN DE HYMEL, THE STODDARD-DAYTON ENTRANT

## TWO OF THOSE WHO WILL COMPETE IN THE SMALL CAR EVENTS

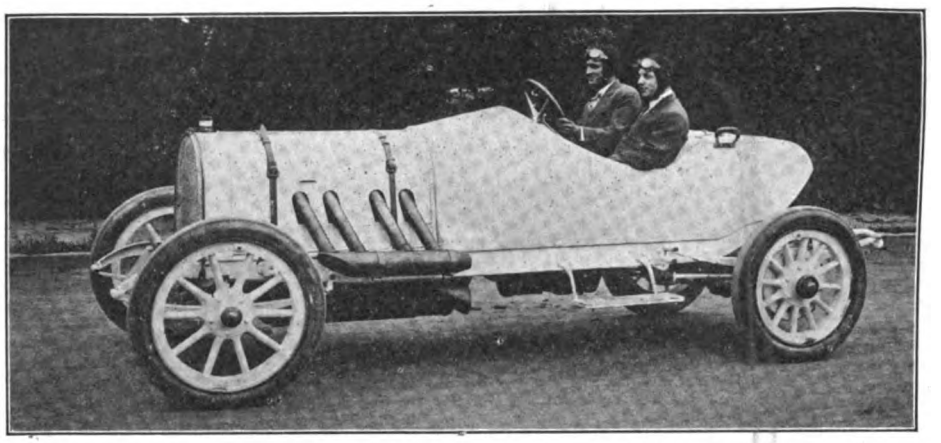


HARRY ENDICOTT AND THE COLE HE WILL DRIVE



MARCEL BASLE AND HIS MARION MOUNT

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THE POPE-HARTFORD TWINS—(1) BERT DINGLEY, DRIVER

to point where trolley is met; turn left on Broadway (macadam), follow Broadway over Long Island railroad tracks at Ozone Park to Leffert's avenue over Long Island railroad tracks to point where railroad tracks and trolley converge. Proceed one block, passing Carnegie Library to Hillside avenue. Turn right on Hillside avenue, passing under Long Island railroad; pass Louis Disbrow's garage, pass Peace Monument in Jamaica. Pass Jamaica Estates to Queens road (indicated by sign board), turn right. Follow Queens road to Jamaica avenue. Turn left one block, following trolley which bears to the right on Queens-Hempstead turnpike, passing Belmont Park, passing through Elmont and Franklin square to Hempstead. Keep straight on, passing new bank building on the right and Long Island railroad on the left, into the Bethpage turnpike. Follow Bethpage turnpike east to a road which has been oiled, at which turn there is an arrow indicating left turn to official grand stand and reserved parking space. (The route from Disbrow's garage is indicated by blue arrows 30 inches long and six inches wide bearing these words: "Motor Parkway Grand Stand.")

Motorists from Staten Island are advised to take South Ferry adjoining and close to Staten Island ferry, to foot of Atlantic avenue, Brooklyn, and then proceed directly up Atlantic avenue to Bedford avenue, to Eastern parkway, which will readily be recognized by the Slocum equestrian monument at the intersection of Bedford avenue and Eastern parkway. At the Slocum statue turn left, proceeding as suggested for motorists from Brooklyn or via the Jamaica avenue route, which also is readily available.

All turns from the Bethpage turnpike north to the official grandstand and official reserved parking space will be indicated by yellow and black signs, which, on the nights before both races, will be illuminated by batteries of calcium lights. The road leading from Bethpage turnpike to the unreserved (fifty cents) field will also be illuminated by a battery of calcium lights. There will be no charge made for cars in this 50 cent admission field, which is unreserved.



EDWARD A. HEARNE (BENZ)



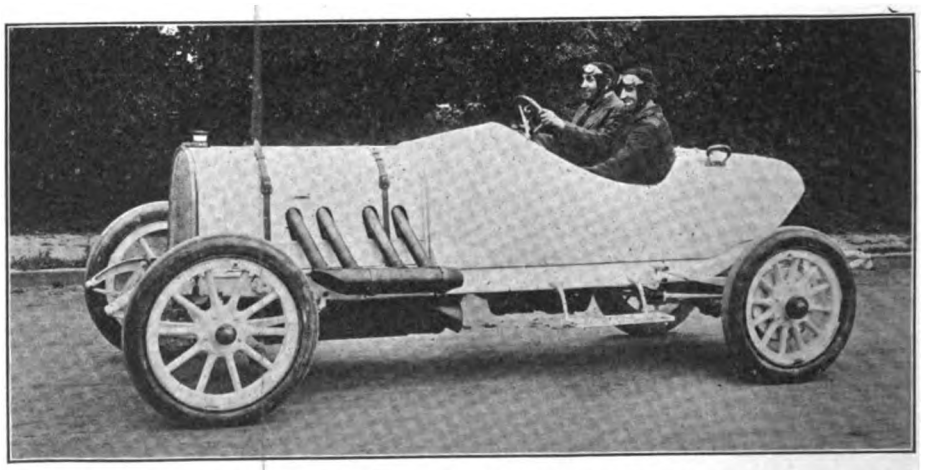
HARRIS HANSHUE (APPERSON)



DAVID BRUCE-BROWN (BENZ)

### Vanderbilt Racer in Odd Suit.

Ralph Beardsley, now more or less in the spotlight as a Vanderbilt race driver, is the central figure in two suits which his aunt, Mrs. Helen A. Boyd, of Highland Park, N. J., has brought against the Buick Motor Co. in the Supreme Court of that state. The cases are to be heard October 3d. Beardsley formerly drove a Buick racer which Mrs. Boyd asserts that she bought for her nephew, with the understanding that he was to be employed as a driver by the Buick company, which would pay for the maintenance of the car. She declares that the concern did not live up to its agreement, putting her to $263 expense. She also claims damages on the ground that the local agent who sold the car disposed of others at less money than he charged her—an unusual outcome of alleged price cutting.



THE POPE-HARTFORD TWINS—(2) JACK FLEMING, DRIVER

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## DE PALMA'S RECORD NOT REGULAR

### Timing Device at Norristown Meet Too Crude for Approval—New Yorker was Almost the "Whole Show."

Ralph DePalma was the whole show at the racemeet of the Norristown Automobile Club at Belmont Park, Narbeth, Pa., on Saturday last, 24th inst. George Robertson was to have shared the spotlight with him in a match race, and some 5,000 people who apparently had not heard that Robertson had been injured the day before in practice on the Vanderbilt Cup course gathered to see the duel that did not occur.

DePalma, however, did his best to entertain the crowd. He started in a handicap race and won it in hollow fashion; he drove his Fiat car an exhibition mile in 49⅕ seconds and later made a ten miles flight in 8:31⅕, which has been widely heralded as a record—a "dirt track record." But unfortunately the A. A. A. will not accept it. The Norristown club had no up-to-date timing apparatus, and made use of the home-made creation of a local electrician which was too crude to pass muster. Chairman Butler himself is authority for the statement that the record will not be booked.

The race which DePalma won was the five miles free-for-all. He allowed the other contestants 20 seconds starts, caught them all on the second mile and won as he pleased in 4:57⅗. Tom Berger, Warren-Detroit, was the runner-up.

The other events did not fill well, but what they lacked in numbers was made up in exciting finishes. In the five miles for Class B, C. C. Fairman, J. D. Kerr and W. D. Morton, all in Kline-Kars, had a hammer and tongs fight all the way, Fairman finally winning in 10:44⅗. In the ten miles for the same class, the same men "had it out" once more and again Fairman won, but by inches only. He also accounted for the ten miles free-for-all, making three victories for the day.

Tom Berger, who has a local reputation, added to it by winning another five miles contest in his Warren-Detroit, W. J. McFarland in an Otto being second and James Rockford in a Moon third. The summary:

Five miles, Class C—Won by Tom Berger, Warren-Detroit; second, W. J. McFarland, Otto; third, James Rockford, Moon. Time, 5:23⅘.

Five miles, Class B—Won by C. C. Fairman Kline; second, James D. Kerr, Kline; third, W. D. Morton, Kline. Time, 5:28.

Ten miles, Class B—Won by C. C. Fairman, Kline; second, W. D. Morton, Kline; third, James D. Kerr, Kline. Time, 10:44⅗.

Five miles free-for-all—Won by Ralph DePalma, Fiat (scratch); second, Tom Berger, Warren-Detroit (20 seconds); third, G. Jones, Otto (20 seconds). Time, 4:57⅗.

Ten miles free-for-all—Won by C. C. Fairman, Kline; second, J. D. Kerr, Kline; third, G. H. Jones, Otto. Time, 10:32⅕.

### Chicago Prepares Its Endurance Contest.

Five days instead of four have finally been decided upon for the 1,000 miles endurance contest of the Chicago Motor Club and November 7-11 inclusive are the dates which have been chosen. The daily journey thus will be 200 miles instead of 250 miles as originally proposed. The routing has not yet been made, but it is known that it will cover three states—Illinois, Indiana and Iowa. Five trophies are to be offered. There will be one for the touring car making the best showing, one for the best runabout score, and one for the make of car with the best total—a team affair in which a manufacturer with three cars entered can pick his two best scores. There will also be a trophy for fuel economy and another for the tire concern whose product makes the best showing. The entry fee will be graded. One car will cost $100, the second car of the same make $50, and the third one $25.

### Asks President to View Philadelphia's Race.

Mayor Reyburn, of Philadelphia, is doing his best to induce President Taft to cut out the golf links Saturday, October 8th in order to attend the third annual Fairmount Park automobile race as guest of the city. The mayor's letter emphasizes the attractions of the varied and picturesque course, also the fact that the fixture has become a household word, or two or three, and calls the attention of the great traveler to the fact that notwithstanding its contiguity he has not lately been in the Quaker City. Although the attendance has reached nearly 500,000 persons, the mayor assures the chief executive that there is always room for one more.

### Hungry Crew Ate the Confetti!

Members of the Buffalo Automobile Co. are not the only ones whom confetti has helped out of difficulties. The Buffaloans made much of the fact that had they not dumped wads of "cold slaw" into certain bad holes on the route of their recent contest they might not have returned to tell the tale. But from St. Paul—the one in Minnesota—comes a yarn that goes the other "one better." In the St. Paul contest they used pop corn for confetti, and when the confetti car became mired in the mud, its crew was saved from hunger only by eating the confetti.

### Rain Drowns the Detroit Racemeet.

The racemeet under the auspices of the Wolverine Automobile Club which was to have been held in Detroit in connection with the Michigan State Fair on Saturday last, 24th inst., was declared off because of rain.

## GREAT CROWD GREETS OLDFIELD

### He "Obliges" the Milwaukeeans by Doing Some Fast Work—Wins Hour Race and Cracks Records.

The largest crowd in the history of automobile racing at Milwaukee turned out last Tuesday, 27th inst., at the state fair track for the annual meet of the Milwaukee Automobile Club. There were nearly 10,000 people in the grand stand alone, the great overflow taking up its stand on "Poor Man's Hill," and every other possible vantage point inside and outside the grounds. Barney Oldfield was there and was the star performer, and, subject to the approval of the A. A. A., he broke four "circular dirt track records," those for 15, 20 and 25 miles and for one hour.

Oldfield used Ben Kerscher's Darracq in his 25 miles time trial, in which he broke three of the records. He reached the 15 miles mark in 13:41⅖—one-fifth of a second better than his old record—the 20 miles in 18:15⅕, and the 25 miles in 22:47. The two latter beat De Palma's records, the last named by 12 seconds.

The one hour race, in which the fourth record was set up, was the feature of the day. Oldfield, in a Knox, won, covering 60½ miles, against the 59 miles recently tallied at Brighton Beach.

The ten miles handicap proved the second best contest, which went to Nelson, a local driver, in a Pope-Hartford.

Only one heat of the five miles match race between Oldfield, in the Knox, and John Heber, in the Marion, was run, Oldfield winning by a few feet. Oldfield then whirled a mile in his big Benz, and cut the local time from 54 to 51 seconds. Ben Kerscher, having been injured at Detroit. was absent. The summary:

Ten miles, Division 1—Won by Fahr, Buick; second, Borsch, Warren-Detroit. Time, 10:31⅗.

Ten miles, Division 2—Won by Fahr, Buick; second, Kent, Buick; third, Nelson, Pope-Hartford; fourth, Hughes, Fal. Time, 9:54⅗.

Ten miles handicap—Won by Nelson, Pope-Hartford; second, Hughes, Fal; third, Borsch, Warren-Detroit; fourth, Kent, Buick; fifth, Heber, Marion. Time, 10:25.

Five miles match—Won by Oldfield, Knox; second, Heber, Marion. Time, 5:47⅕.

One hour—Won by Oldfield, Knox, at 60½ miles; second, Nelson, Pope-Hartford; third, Fahr, Buick; fourth, Borsch, Warren-Detroit; fifth, Fisher, Buick; sixth, Hughes. Fal; seventh, Kent, Buick.

One mile time trial—Oldfield, Benz, in 51 seconds.

Twenty-five miles time trial—Oldfield, Darracq, in 22:47.

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## "ACCORDING TO SHAKESPEARE"

**Feminine Delver Into His Works Brings "Evidence" to Bear that He Foresaw Motoring Conditions.**

Those who assert that Shakespeare was not up to date don't know what they are talking about, according to a Wharton (Tex.) young woman. To demonstrate that the "immortal bard" was very much in advance of his day, she brings to bear these extracts from his writings:

Automobiles.—Fearful scouring doth choke the air with dust.—Timon, V-II.

Automobile Lamps.—Methought his eyes were two full moons.—King Lear, IV-VI.

Automobile Horn.—The horn, the horn, the lusty horn, is not a thing to laugh to scorn.—As You Like It, IV-II.

Gasolene.—The rankest compound of villainous smell that ever offended nostril. —Merry Wives, III-V.

Chauffeurs.—I'll come along and be thy waggoner, and while along with thee about the globe.—Titus, V-II.

Automobile Goggles.—Get thee glass eyes.—King Lear, IV-VI.

Automobile Caps.—These black masks proclaim an enshield beauty.—Measure for Measure, II-IV.

Automobile Veils.—Give me my veil; come, throw it o'er my face.—Twelfth Night, I-V.

Joy Riders.—I must become a borrower of the night, for a dark hour or twain.—Macbeth, III-I.

City Streets.—I do not without danger walks these streets.—Twelfth Night, III-III.

Country Roads.—Though our silence be drawn from us with cars.—Timon, V-II.

Mortgaged Automobile.—He that dies pays all debts.—Tempest, III-II.

Automobile Races.—All the devils are here. —Tempest, I-II.

Speeding.—Here comes a pair of strange beasts, which in all tongues are called fools.—As You Like It, V-IV.

Pursued.—We may outrun by violent swiftness—and lose by overrunning.—Henry, VIII-I.

4-G-M.—Have a good eye, uncle, I can see a church by daylight.—Much Ado About Nothing, II-I.

Puncture.—I have done the deed. Didst thou hear the noise?—Macbeth, II-II.

Stuck.—He doth bestride the world like a colossus, and we petty men walk under his legs and peep about.—Julius Caesar, I-II.

Automobile Victim.—He jests at scars that never felt a wound.—Romeo and Juliet, II-II.

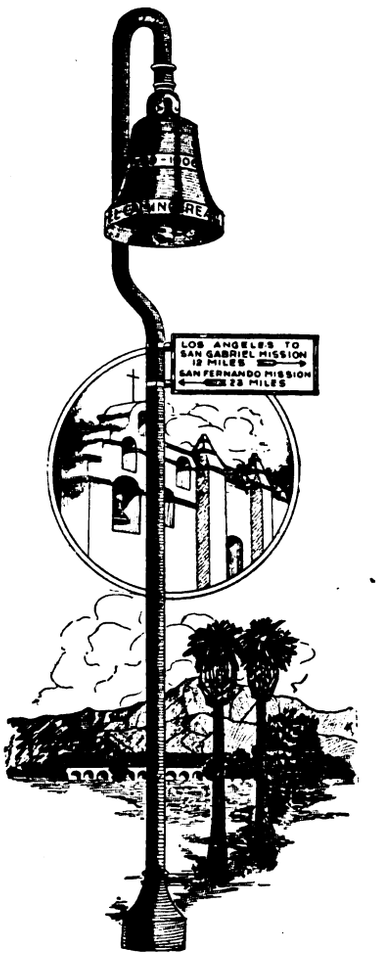
Mounted Police.—We will fetters put upon this felon, which goes too free footed.—Hamlet, III-III.

Pinched.—We plead like angels.—Macbeth, I-VII.

Judged.—The law hath not been dead, though it hath slept.—Measure for Measure, II-II.

**Making the Guide Board Picturesque.**

It is no longer sufficient that a guide post should "show the way," or even that it combines with utility the artistic. Another attribute is imperative, at least in California; there it must be melodious, also. This effect is due to the action of the supervisors




of Los Angeles, Ventura and Santa Barbara counties who some time since granted to a real estate association the privilege of marking the El Camino Real (the King's Highway) road by artistic bell guide posts. In Los Angeles the bells are familiar to all travelers, 36 of them being scattered throughout the county, while 14 not long since were put up in Ventura county; there are a few others in Orange county, Santa Barbara, Santa Clara, Monterey and San Francisco and 20 more are to be erected. The bells are counterparts of the Mission bells poetically handed down since the Spanish occupation. They are so suspended from metallic staffs about 18 feet high that even a gentle wind is sufficient to tinkle them. Below the bell a guide board is clamped to the post. Their picturesqueness is shown by the accompanying illustration.

## MOTORISTS ARE SQUEEZED AGAIN

**British Government Lifts Their Taxation Almost Sky High—Prohibitive Rates on High Powered Cars.**

While there were but few 60 horsepower cars in use upon the highways of Great Britain, there are likely to be still fewer of them as a result of the new English motor vehicle law which went into effect September 1st. This law puts an almost prohibitive tax upon high-powered cars, jumping in geometrical progression from $52.50 for 40 horsepower cars to $105 for 60, and $210 for those of more than 60 horsepower. Cablegrams assert that automobiles of from 40 horsepower upward now are at a discount—that they are being thrown upon the market almost regardless of price, some new highclass cars costing $5,000 being offered for $1,500 to $2,000, not by some second hand dealer, but by the manufacturer himself. According to the same sources, the favorite car of Great Britain is the fifteen horsepower touring car, and since the passage of the new law the increase in production of the medium powered, medium priced vehicles has been remarkable. The old tax scale provided for a tax of $10.50 on an automobile not exceeding one ton in weight, and $21 in the case of a car of more than one and less than two tons, while the new scale is as follows:

Motor bicycle or tricycle, any horse power, $5.

Motor car not exceeding six and one-half horse power, $10.50.

Motor car exceeding six and one-half, but not exceeding twelve horse power, $15.75.

Motor car exceeding twelve, but not exceeding sixteen horse power, $21.

Motor car exceeding sixteen, but not exceeding twenty-six horse power, $31.50.

Motor car exceeding twenty-six, but not exceeding thirty-three horse power, $42.

Motor car exceeding thirty-three, but not exceeding forty horse power, $52.50.

Motor car exceeding forty, but not exceeding sixty horse power, $105.

Motor car exceeding sixty horse power, $210.

**Touring Kink to Protect Varnish.**

When it becomes necessary to carry suit cases or other impedimenta within the tonneau it is a good plan to affix a fairly heavy pad of canvas or carpet to the back of the front seat in order to protect the varnish. Where much touring is to be done and it is customary to carry the hand luggage in such a way, suitable strap hooks may be secured to the back of the seat and the pad fitted with loops on the back side through which the straps may be passed

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## BUILDING FOR BUSINESS NEEDS

**Progress Shown by Consideration for Service Requirements—Seeking for Flexibility.**

Following the example of the stately and illustrious Col. Sellers, the discoverer of any commercial opportunity is apt to measure its possibilities in terms of population rather than on a basis of conservative probability. It is more or less so in the case of the commercial motor vehicle—the over-sanguine automobile enthusiast is apt to think he sees a sales opportunity whenever he beholds a horse and wagon, whereas he only witnesses a possible opportunity to demonstrate the advantages of motor vehicle transportation to a probably unwilling listener. This optimistic feeling, of course, is a part of the old spirit that is wearing away very rapidly; the disappointment that follows its suppression is one of the growing pains that auger hopefully for the future.

Automobile manufacturers who are paying close attention to the business vehicle are learning many things, and one of the most promising signs of their increasing wisdom is the way in which they are beginning to adapt their products to the manifold requirements of the different users, instead of attempting to force the users to adapt their services to fit certain fixed specifications. Flexibility is the word that best expresses the idea; for in order to meet with entire success, the commercial vehicle must be adaptable to a wide variety of uses, both freight and passenger. The manufacturer's aim must be to produce the least number of standard parts, combinations and units that shall be susceptible to assemblage in the greatest number of vehicular products.

It has taken several years clearly to differentiate between the commercial positions of the pleasure and business vehicles. It is now understood that they are at the opposite ends of the scale. The car that is used solely for purposes of recreation is salable, roughly speaking, to anyone who has the price; while the vehicle that is to be used entirely in a business way may be sold only on the basis of a conviction that it will prove an economy over existing transportation methods. A terse and unkindly way of putting it would be to say that one class of machine is intended to assist in the distribution of wealth and the other in its conversation.

Of course, the dividing line between the extremes is indefinite. A three-ton truck used for the purposes of a Sunday school picnic becomes, for the time being, a pleasure car, while many a high-speed runabout is employed by its owner chiefly in utilitarian and business ways. But the distinction is important as illustrative of the real basis of the business wagon, whether intended for freight or passenger transportation. As automobile manufacturers come to this way of thinking they are able to take a sane and un-Sellerslike view of the opportunity that is open in the building and selling of motor cars for business and industrial purposes.

One of the most important points in connection with the installation of motor vehicle systems is the requirement that they shall "fit" the business which they are to serve. This is where the individual service differs from that of the common carriers. The latter determine the nature of their service on the basis of their total run of business; the individual patron must adapt himself to meet the resulting schedules. The power wagon user, on the other hand, adopts a system that is absolutely pliable and that may be adapted to his exact needs in every respect—at least that is the ideal.

One manufacturer may find it necessary to transport one and a half tons of empty paper boxes two miles over cobble stones in the course of the average working day; another may have to haul 15 tons of steel castings five miles over rough country roads and make four or five trips a day; another may be interested in a variety of lines, such that the motor vehicles that he employs will be forced to carry bulky loads at one time and heavy loads of small bulk at another. The service of one user may lie entirely over city pavements with no particular grades; another may be forced to use dirt roads; a third may be located in a hill country, and a fourth may be in need of quick service above all else. Yet in terms of bulk and weight of loads all four may exhibit similar requirements at the outset.

Such differences in demand suggest a portion of the various elements in the manufacturer's problem when he sets out to build commercial vehicles. So long as the motor wagon be considered in the light of a common carrier system in miniature, such variations in requirement need not be considered, but when the motor vehicle is considered in the light of a commercial utility that needs to be nicely fitted into the business of every individual, no matter what his line, no matter how limited or how extensive his need may be, it is essential that the very last details of his work be studied with care and selection made accordingly. By way of corollary, it follows that the prospective user who has not studied his business impartially, who is not familiar with the details of automobile operation, is not likely to be able to determine wisely the nature of the equipment that is best suited to his needs.

As indicating how some of the more sagacious manufacturers of commercial vehicles look at it, it is interesting to observe the marked differences in methods of advertising and cataloguing pleasure cars and trucks. In the case of the former the possible customer is openly invited to investigate for himself the merits of the proposition and to purchase. Where the commercial vehicle is concerned, however, in several instances the prospect is urged not to buy hastily, but to consult with the manufacturer's expert salesman.

In the back of the catalog will be found, not a "clinching" selling argument, but a series of such suggestive questions such as these:

"How many horse-drawn vehicles are in your employ? What capacity are they? How many horses do you keep for each vehicle? In what sized packages are your goods delivered? How many times in each 24 hours does each vehicle leave your place of business loaded for a delivery trip? How many miles does it cover in one trip? How many stops does it make in one trip? State what kind of streets you must cover. What per cent. grades? Do you have extreme mud or heavy snow? How many men accompany the driver? Does your driver collect money or take receipts when he delivers? If you employ motors what radius of territory do you wish to cover?"

In response to such questions, the up-to-date manufacturer learns enough of the prospect's business to enable him to determine wisely the general nature and extent of the equipment that is required. Not all commercial car builders follow this excellent plan, it is true, but the exigencies of the business fast are increasing the number of those who do carry out the general idea in one way or another.

But what is quite as important as the details of the selling plan is the effect that such a course is having, and is likely to continue to have in the future, upon design. The broad question at once follows: "Does the adaptation of the motor truck to specific uses involve the partial or complete suppression of the stock machine? Undoubtedly it has a most important bearing on the continuance of the complete stock machine; that much already is evident. So, it must have an equally important bearing upon the industry in general; for in reducing the number of stock specifications and increasing the amount of special work on each lot of machines sold, the chance for profit is diminished.

Owing to differences in the bulk of different commodities body sizes cannot be standardized on a basis of net load. Therefore, body design must be carried out largely in accordance with the nature of the loads to be carried. This involves flexibility in specifications sufficient to allow variations in wheel base, overhang and width of load platform.

Similarly, because of the difference in highway conditions in different localities, it is somewhat questionable whether it is possible absolutely to standardize the ratio of engine power to useful load. Indeed,

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even three or four years ago one manufacturer announced the plan of adapting engine capacity to load and road requirements at the very outset, being assisted in doing so by the production of several engines of different power that were interchangeable in the standard sub-frame used on all his truck chassis.

Even the question of useful vehicle speeds must be determined to some extent by local conditions, the ratio of final transmission thus depending on the exact nature of the use to which the vehicle is to be put. The same applies to suspension, control, clearance and tire equipment in greater or less degree.

Expressing one method of solution, a New England truck builder has adopted the phrase "master unit system," and divides his product into these five components: first, the engine; second, the change gear; third, the countershaft; fourth, the chassis and springs; fifth, the axles and wheels. By paying suitable attention to interchangeability among these units it is evident that a wide variety of vehicle purpose may be served with a maximum of manufacturing economy. In the unostentatious, though effective, progress of the electric vehicle much the same sort of flexibility and production economy has come into service.

This by no means involves the entire elimination of the stock vehicle; rather, so to speak, the creation of a new stock type for each new variety of service encountered. For it develops upon consideration, that as the business of all express companies, all foundrymen, all tire manufacturers and all flour and feed merchants is closely similar a certain sort of standardization by goods is possible. Such standardization applies to body sizes and structure and to certain other factors as well.

Viewing the commercial problem in this way, its apparent profits begin to dwindle and it loses some of the attractiveness that it possessed at the outset and becomes just an ordinary clean business proposition with most of the glamor left out. Col. Sellers' way of looking at it would have been something like this:

"The city of New York employs 1,000 horses in the business of cleaning its streets and removing potato peelings from your back yard and mine. Now one truck will replace three horses, so there are 333 trucks sold right away."

The modern commercial vehicle salesman begins by figuring, not how many trucks can be placed in a given location, but how few trucks can be employed to accomplish a given amount of work. To Col. Sellers's way of thinking, this would be a suicidal business method, perhaps, but at all events, the salesman who follows these lines and the manufacturer under whose instructions he works are finding this a profitable and not unappreciated method of procedure.

## HOLDS THE MAKERS RESPONSIBLE

### Manufacturer of Well-Known Accessory Discusses the Price-Cutting Evil—Offers Effective Remedy.

Editor of the Motor World:

This letter has to do with a matter of such pressing importance to manufacturers of automobile accessories that I doubt if any other general problem today quite takes its place.

Briefly, I refer to price cutting.

As you are well aware, the cut rate house is fast establishing itself throughout the country, wherever trade is best. Its existence, already a serious menace to the regular dealer, whose business has been built up steadily through fair dealing and regular methods, is likewise certain to prove disastrous in the end to the manufacturer.

But there is an ethical as well as a business side to the matter.

The manufacturer looks to the regular and legitimate dealer to handle his product and sell it at list prices—to maintain strictly these prices, moreover, to their mutual advantage, and yet—around the corner, perhaps, from the regular dealer—a cut rate house is offering the same article, and probably advertising it extensively, at a reduced price.

What is the regular dealer to do? What can he do except to pit good reputation and good salesmanship against the heavier odds of low prices? But what of the manufacturer—he who asks and expects the dealer to uphold his list prices? What is he doing?

As a matter of fact the solution of the difficulty is altogether up to the manufacturer.

Ethically, the manufacturer ought to be responsible. His duty to the dealer doesn't cease when goods are sold and shipped. He should see to it that the dealer makes a legitimate profit and is given the same protection that he himself expects from the dealer. Personally, I believe that the dealer is fully within his rights in demanding such protection.

But what I want to prove here is: that every manufacturer, provided only that his product is patented, can effectively stop price cutting, and that, moreover, it is to his own best business interests to stop it.

This company has perfected and had in successful operation for some time a license system, consisting of license labels, tags and bill-heads, all governing the sale of the Klaxon warning signals.

A complete description of the system and its operation cannot be given here, for lack of space, but I will gladly send same, together with specimen labels, etc., to any manufacturer who is interested. With simple changes it can be applied to any patented accessory.

As to the complete effectiveness of this system I can only say that today, so far as this company is aware, it is impossible to obtain a Klaxon under its list price from any house anywhere.

During the summer past we issued injunctions against ten firms in New York, two in Philadelphia and one in Pittsburg. As a result of these injunctions the above dealers are effectively prohibited from dealing in Klaxon signals at any price, from cataloging them or from securing them from any source whatever.

This summary action may, at first thought, strike the manufacturer as bad business. As a matter of fact, we have proven it to be decidedly good business. The comparatively small trade which it lost for us has been made up many times over by increased business of permanent value from firms of real merit and stability.

Logically and practically that is the way the matter is bound to work out.

We have on file a large number of letters from the trade in Boston, Philadelphia, New York, etc., all of them incited by our campaign against price-cutting, and all of them testifying warmly to their appreciation of our efforts in their behalf.

A manufacturer has only to glance over these letters to convince himself of how vital the issue is to the dealer.

The matter is pressing and the solution is possible and practicable. I trust that the manufacturers will appreciate both these statements and unite at once to protect their trade and themselves.

Yours respectfully,
F. HALLETT LOVELL, JR.,
President Lovell-McConnell Mfg. Co.

### Discriminating Between Storage Customers.

Because some of its patrons who store cars in its garage go elsewhere to purchase their gasolene, oil and grease, the Van Automobile Co., of St. Louis, Mo., has given notice that henceforth all such patrons must pay 33⅓ per cent. more for storage than those who buy their supplies from the Van company. Other St. Louis garagemen are said to contemplate similar discrimination, the profit from the sale of gasolene and oil representing a snug sum in the course of a year, which they are reluctant to sacrifice.

### Street Car Strikers Form Bus Company.

Having failed to win their fight, which twice required that militia be called out, the striking street car employes of Columbus, Ohio, have adopted another means of discomfiting the local traction magnates. They have organized the Columbus Motor Car Transportation Co., capital $100,000, for the purpose of operating a line of motor buses in competition with the street cars—a novel method of fighting "capital" with its most trusted weapon.

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## "REACTION" IN AMERICA DID IT!

### Caused British Rubber Shares to Slump, It Did—Light on This and Other Rubber Situations.

That a "reaction" in the automobile industry of the United States in some way may be responsible for the decline of the rubber market at the present time, was the interesting suggestion offered by the chairman of the Malacca Rubber Plantations Co., of London, on the occasion of its recent annual stockholders' meeting. The Malacca company being one of those concerns that had been held up to investors as a high velocity vehicle to rapid wealth, the showing made at the end of its fiscal year was such as to create consternation among the stockholders. Their fortunes were not being materially increased. The consequence was that the chairman was put to the task of giving a somewhat long-winded and highly ingenious explanation. Incidentally he paid high tribute to commercial enterprise in America "where," to use his words, "there can be no such thing as a permanent setback in any trade."

"Three or four months ago no doubt was entertained as to a maintenance of high values for this year and next year," said the chairman in the course of his "explanation." "Sales of 1911 and even 1912 crops were easily negotiable, and a basis for the valuation of the shares of producing companies was provided upon which all speculation rested. Without any warning, and for no apparent reason, the price of plantation rubber has fallen in the course of four months from 12s. to 7s. per pound, and in the meanwhile there has been no unexpected increase in production.

"From all that one hears the European manufacturers of motor cars are extremely busy, but in the United States a period of unprecedented and feverish activity in the automobile trade has been followed by a reaction. Is there anybody in this room who doubts that reaction will be followed by a recovery? In the United States there can be no such thing as a permanent setback in any trade—(hear, hear)—and so far as the motor industry there is concerned it would appear to be capable of great expansion.

"When hard, fine Para sold at 12s. per pound this price created so little suspicion in the mind of the buyer that he willingly paid a premium for plantation rubber, because of its greater purity, hard fine Para containing about 15 per cent. of water or impurities. Today, when the price of hard fine Para is 8s. the buyer is so convinced that this price is unreal, fictitious, nominal, and the mere consequences of wicked manipulation, that he will not consider it to be a true value, and proceeds to take a shilling off that price in order to arrive at the real value of plantation rubber.

"Now, whatever the price of rubber in the more immediate future is to be, it is obvious that the price of the shares of a producing company cannot remain unaffected while the commodity which they sell falls nearly 50 per cent. in the course of a few months and in so mysterious a fashion. For the fall in rubber, which must inevitably occur in the course of time as a legitimate consequence of larger production no company is better prepared than the Malacca Company. (Hear, hear.)"

The "hear, hears" are instructive, and the innocent surprise of the chairman, over the fact that consumers who bought enthusiastically at top prices should have been shy buyers at the bottom, is almost amusing. The meeting ended oddly. One wicked shareholder, after making caustic remarks, moved a resolution of want of confidence in the directors. The chairman ruled it out of order. Another shareholder moved a resolution of confidence, but the wicked shareholder's friends demanded that that resolution too should be excluded, and it was done.

Incidentally, as shedding a somewhat different light on the situation, it may be stated as the experience of certain American rubber manufacturers that, insofar as the local market is concerned, nominal price quotations have little real effect on actual sales in considerable amounts. When it is endeavored to take advantage of a low quotation by large purchases, for example, it is said that prices have been found subject to sudden and unexplained fluctuations, which always are sharply upward. Hence although fine Para is now quoted in New York as low as $1.57 per pound, the manufacturers insist that as far as affecting their manufacturing costs is concerned, it might as well be quoted at either $1 or $3 per pound. In other words, the actual volume of rubber sales in New York is held to be so small that it cannot be said to create a "market" in the sense in which the term usually is applied in dealing with the transfer of staples in large bulk.

### Dust Shield and Adjustable Rear Seats.

By way of a novelty in body design a British builder lately has hit upon the expedient of erecting a glass dust shield at the back of the tonneau. In the original design the glass follows the contour of the body, which otherwise is of the true torpedo type, and is high enough to afford protection for the heads of the passengers. In addition to this feature, the body in question is provided with adjustable rear seats. The seats are individual in form and may be varied in both height above the floor and in inclination, while, upon occasion, they may be reversed, so that the occupants may sit facing to the rear if they so desire.

## NOW RIVALS GASOLENE FOR FUEL

### Phenomenal Increase in the Use of a Coal Distillate—Its Cheapness and Volatility Recommend It.

While American and Russian exporters of gasolene are fighting tooth and nail for the trade of Continental Europe, and still more violently for that of the United Kingdom, cutting prices right and left, there has arisen a rival to gasolene, which bids fair to play an important part in the future development of the automobile and motorcycle industry. As J. I. C. Clarke, publicity manager of the Standard Oil Co., said when the question of gasolene supply recently was put up to him, "there is more than enough of the raw product in sight; the difficulty lies in the lack of facilities for distillation of the crude oil." This difficulty of distilling gasolene in sufficient quantities is one which is likely to continue for some time to come.

The recent phenomenal growth of the benzene industry in Germany and the United Kingdom seems, however, to point a way out of the difficulty. Benzene—not benzine—is obtained by destructive distillation of coal; every ton of coal yields nearly two gallons of rectified benzene. Its chemical formula is C6 H6 and its chemical name is Benzol. It is the nucleus of the almost unlimited number of organic compounds which make up all organic life, and which are all derivatives of C6 H6. Benzine, however, is an entirely different product. It is manufactured by fractional distillation of crude petroleum and is slightly less volatile than gasolene, which also is one of the products of distillation of petroleum.

The new gasolene is not what may be called a "dark horse." It has been known to the chemical industry for a long time; it is being used by millions of people daily all over the world; but in its application to internal combustion engines it is something of a novelty. For several years benzene has been used in Germany, where it is produced in great quantities, for the purpose of driving motors, automobiles and motor boats, as well as for use in many trades as a general cleansing liquid and in the manufacture of aniline colors. The recent rise in the price of gasolene has given an enormous impetus to the manufacture of benzene, and now the time has come when it not only is imported into France, but threatens to drive out of the French market the gasolene made in America, Roumania, Galicia and Russia.

The gasolene situation in France is an extremely interesting one. There is a duty of 12.50 frcs. per 100 kilos (or $22.50 per ton of 390 gallons) on gasolene manufactured from petroleum. The words "man-

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ufactured from petroleum" constitute the joker in the tariff law, for by means of it the 37,000 tons of rectified benzene (90 degrees) which enter into France every year over the German frontier are admitted free of duty, and thereby enabled to compete successfully with the gasolene imported from America. Benzene costs in Paris about 18 francs per 100 kilograms, or approximately 10 cents per gallon, while gasolene costs at least 20 cents a gallon. France consumes annually 19,000,000 gallons, 14,000,000 of which are imported from other countries.

There is no doubt but that benzene could be manufactured in the United States just as cheap as or even cheaper than in Germany. The coal fields in Pennsylvania offer unlimited quantities of coal of poor quality which is particularly suited to distillation. The products, benzene, tar and coke, always are valuable. There really is no need of fearing a famine in gasolene, for benzene from coal tar can be produced easily and of a high quality.

The benzene made of coal tar differs in many respects from the present commercial gasolene. In the first place it is far more easily evaporated. Carburation is therefore much more thorough and easy. Being free from impurities, it leaves less residue after combustion.

The present production of benzene is distributed as follows: England and Wales, 13,650,000 gallons; France, 5,070,000 gallons; Germany, 27,300,000 gallons.

### Makes Buffer for Rear of Cars.

The Rear-End Buffer Co. is the style of a new concern which has commenced business at 1777 Broadway, New York. As its title indicates, it is marketing a buffer designed to prevent damage to the backs of cars from rear-end collisions.

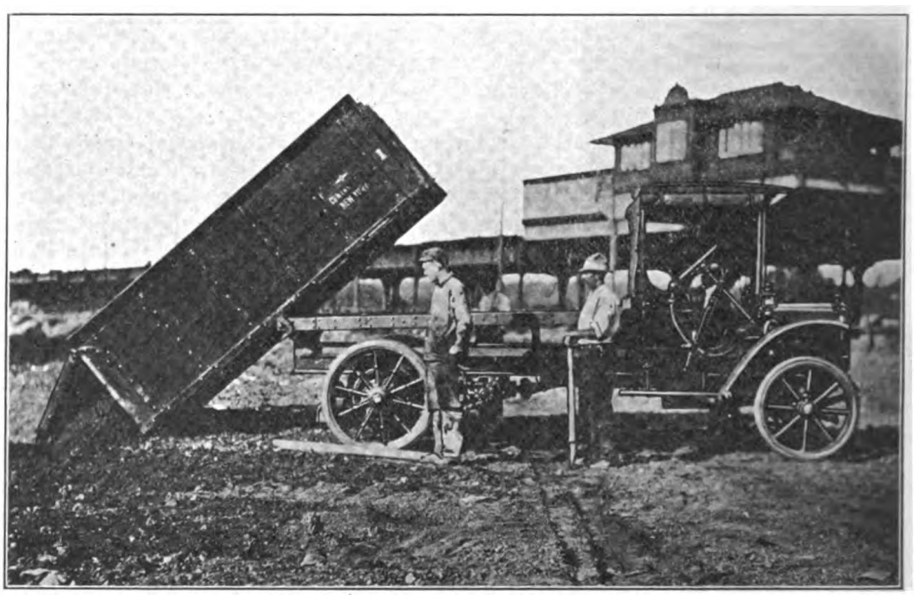
## DEVELOPS NEW DUMPING BODY

### White Produces Special Truck Equipment for Coal and Gravel Haulage—Adopted by New York Contractor.

After considerable study of a problem, which is far more involved than might appear, the White Co., Cleveland, Ohio, has developed a new form of dumping body for its gasolene truck, the vehicle now having been in successful operation for some two months in New York City. This style of body is intended especially for the handling of coal, ashes, gravel and the like, and the first vehicle of its class at present is being employed by the firm of McDonald & Barry, which has a contract with the city.



NEW WHITE DUMPING TRUCK LOADING FROM A CHUTE



SHOWING THE TRUCK DISCHARGING ITS LOAD

In hauling wet ashes from a power house on the Harlem river at 224th street to a new street which is being filled at Broadway and 240th street, the truck is called upon to transport a load of seven cubic feet a distance of more than a mile. Since being put into service the machine has averaged from 10 to 12 trips per day.

The regular horse drawn equipment which previously had been employed on the work was able to take care of only three and one-half cubic yards of ashes per trip, making on the average from five to six trips a day. The motor truck thus has done four times the work of the horse drawn unit, or, in other words, it has replaced four teams.

As the accompanying illustrations show, the body is of the end-gate type and is built in gondola form. In discharging its load the body is slid back on the chassis until it overbalances and tilts back over the rear of the frame.

### Planning More Motor Truck Tests.

It is getting to be really fashionable to conduct a motor truck test. Following the recent "endurance" affair for commercial vehicles in Philadelphia under newspaper auspices, as noted last week, William R. Hearst saw a beacon and announced similar affairs in Boston and New York, under the lead of his dailies in those cities. There were indications also that he intended to gain publicity and advertising of the same sort along the other links of his chain in San Francisco, Los Angeles and Chicago. It appears, however, that he is to be forestalled in the city by the Golden Gate, for the San Francisco Call announces such a contest, in which the San Francisco Motor Club will co-operate. No date for the affair has yet been named, which indicates that great celerity was made in heading off Mr. Hearst.

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## MAKING PATTERNS BY NEW METHOD

### System that Greatly Facilitates Process of Moulding—How it Operates and Compares with Usual Methods.

Because so much attention has been drawn to the manufacturing economies that have resulted from the development of new and improved machinery it may not be generally known that almost equally important improvements have been made in automobile production in other departments than the machine shop. No more sweeping benefits have resulted than from intelligent study of metallurgical problems, and in this connection ordinary foundry work, particularly in the duplication of large numbers of small castings. Such progress has not always been at the hands of independent experts, but frequently has resulted directly in the automobile maker's plant.

A pertinent example is the adoption of a new method of pattern making by the Maxwell-Briscoe Motor Co., incidental to the recent installation of new machinery and equipment at the Tarrytown, N. Y., plant. The method, which is the invention of Hugh McPhee, superintendent of the Maxwell foundry, has proved so successful in experimental service that a permanent department has been created for its employment, while a new building, especially equipped for aluminum casting, is being added to the bronze and brass foundry in order to accommodate it.

The duplication of small castings naturally is expedited by the use of moulding machines in which the hand labor of "riddling," or sifting, the sand over the pattern, as it lies within the flask on the moulding board and then of "ramming" it firmly into place, is performed by mechanical means. By the hand method, one section of the flask, or sand box, is inverted on the moulding board with half of the wooden or metal pattern laid flat upon the board and the sand rammed hard down around it until it is packed sufficiently hard so that the "nowel," as the lower section of the flask is called, can be capsized without disturbing the pattern. The remainder of the pattern then is superposed on the part already embedded in the sand, the matching of surfaces which, in the casting, are to be continuous, being secured by means of dowel pins and sprockets in the two parts of the pattern. Afterward, the upper portion of the flask, known as the "cope," is affixed to the drag and sand rammed into place around the exposed portion of the pattern. When the two portions of the flask are separated thereafter the sections of the pattern likewise separate and each can be "drawn" from the sand, leaving a clear imprint in each part of the flask which, when the two again are matched, will leave a perfect matrix for the reception of the molten metal in forming the casting.

In the match plate method of machine moulding, this process is rendered much more rapid by duplicating the patterns in metal and attaching corresponding parts to flat plates that form the moulding board upon which the flask sections are placed and the respective halves of the mould prepared. This greatly facilitates the moulding process, the most laborious and hence the most expensive portion of foundry processes, and renders possible the production of uniform castings in casting a great number of small and similar pieces.

The ordinary match plate process in its simplest form, however, fails to be satisfactory when parts are to be cast that have projecting bosses or lugs that do not "part" on the center line—in other words, where there are projections that would overhang in the sand, the simple plate process is not available. It is a modification of this method that has been worked out for use in the Maxwell foundry.

In the McPhee system a master pattern of the required casting first is made in wood. From this enough white metal duplicate castings are made to fill the flask.

By the McPhee system patterns with an uneven parting line are as easily moulded as are those that have a straight parting line, for it is nothing more nor less than a method of mounting the individual patterns on the plate by a special casting, rather than a mechanical fastening process. A master pattern of the required casting first is made of wood. From this enough white metal duplicates are cast to fill the flask in which the moulding is to be done.

A perfect mould of these patterns, both nowel and cope, is then rammed up, and after taking apart the flask and drawing the patterns metal is poured into each impression separately until it is filled flush with the parting line. This is done in each half of the flask and results in a series of half-patterns together with "prints" that correspond to irregularities in the parting line.

Iron frames taking the place of the plates on which the patterns generally are mounted for the machine moulding process then are placed on each half of the flask and a composition poured in completely filling all open spaces. The frames are so formed that the metal is held in place, cross bars acting as a reinforcement for the composition and stiffening the entire plate. The same process also serves to weld the demi-patterns and prints firmly into the frames, and automatically to ensure their exact position with relation to the flask, and so to the duplicate patterns in the other section, which must match perfectly when the two halves are joined in order to complete the mould. When this is done, of course projections on one section that were formed by irregularities in the parting line exactly fit corresponding depressions in the other section, leaving the open matrix in the exact form required to produce the desired castings.

Even where the plate moulding system is employed on the bench, exactly as plain patterns would be, a great saving in expense is brought about, since it is possible to mould a half dozen or more parts in the time that otherwise would be required in moulding a single piece. But when the plates are used in the moulding machines the work is done so much more rapidly that the extra cost of the patternwork and the machine is wiped out and an enormous saving in final cost achieved. Add to this that the plate-moulded castings are far more uniform than those handled separately and the advantages both of the general process and of such refinement to it as that described as not hard to appreciate.

### Truck Test that Lasted 27 Days.

Of 34 machines that started in the industrial vehicle trials organized by the Automobile Club of France, on August 12th, no less than 28 finished the extended test, but the winners have not yet been declared. The contenders were De Dion, Latil, Peugeot, Delahaye, Panhard, Berliet and Vinot vehicles, and two Malicet-Blin. Of all the tests in the long series of annual events conducted by the French club, this has been the least appealing to the general public, owing to its technical nature; nor is the condition materially remedied by the delay occasioned by the tardy action of the committee in charge, which still is engaged in working out the fuel and oil consumption records of the entrants in order to determine the winners. Unlike the "endurance tests" promoted by some American newspapers, this French trial was a very severe one, extending over four weeks.

### Nightwork that Led to Jail.

Working at night may be a commendable act when performed by a young man anxious to make a little extra money, but when carried to extremes is likely to land the over-anxious one in jail. At least that was the experience of Harry Konover, of Trenton, N. J. He was employed as machinist in a garage, and after his regular hours did odd repair jobs all over the town. He, however, was somewhat liberal in his views, for he utilized his employer's supplies, tools, accessories, etc., in making these repairs or replacements, with the net result that he was arrested on complaint of the garage owner, the Mercer Automobile Co., charged with grand larceny of $200 worth of tires, magnetos and lamps.

### Reed that Changes Tone of Horns.

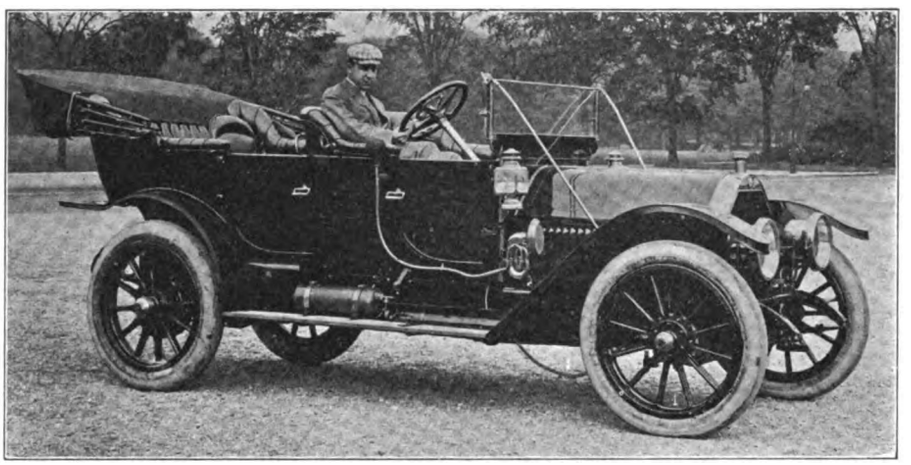
The General Novelty Mfg. Co., 3972 Olive street, St. Louis, Mo., is marketing what is styled Bishop's bullfrog horn reed, which is designed to render the tone of bulb horns sharper and more commanding. The reed is applicable to all sizes of horns.

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## FEW CHANGES IN THE THOMAS

**Buffalo Manufacturer Has Closed-Front Bodies, of Course, but Mechanical Essentials Remain Unaltered.**

Although it is now two and a half years since a half dozen motor cars commenced the great and only New York to Paris race, the memory of the feat still lingers and the prestige that the winning Thomas car achieved by outstripping its competitors continues to shed luster on the reputation of the E. R. Thomas Motor Co., of Buffalo, N. Y. And it is noteworthy that although sundry new features have been added to the line and alterations made which are by no means of minor importance, the general construction of the machine remains about the same as that embodied in the round-the-world model. Indeed, between the models announced for fall and spring delivery and those produced during the past spring and summer, there are but few points of distinction.



THE NEW THOMAS "6-40" CLOSED FRONT TOURING CAR

As is the case in so many instances just now, the chief element of novelty in the so-called "new" models, lies in the adoption of closed front bodies, either in the outright torpedo form or in the rationalized four door touring car equipment. As in all the Thomas products the new bodies that have been built for the more radical class of customers reveal not a little ingenuity of line and finish, though introducing no very startling divergence from what may be termed standard body design. The accompanying illustration shows one of the new "6-40" cars, E. L. Thomas, general manager of the Thomas company, seated behind the wheel. The same general effect as is here produced is secured in the mounting of both the seven and five passenger closed front cars that are built for the six cylinder 40 horsepower chassis. By way of a somewhat more racy offering, there is also the Torpedo Flyer, so-called.

Technically, this particular chassis model is in only its second year. In point of general design, method and materials of construction, and in respect to workmanship, however, it is strictly in the same class with the remainder of the extensive line. As for its individual characteristics, it has the long-stroke motor, the cylinder dimensions being 4¼ by 5½ inch bore and stroke, the large valve areas and shaft drive that distinguish the smaller from the larger of the two Thomas six cylinder chassis models. As compared with last year, it has been altered but very slightly. A double jet form of carburetter now is used, in place of the single jet type formerly employed, and in consequence the speed range of the motor has been increased. The driving ratio now is 3 3-7 to 1, instead of 3 to 1, and the car speed range on high gear now is quoted at 3 to 55 miles an hour, instead of 5 to 55.

The equipment, which is very liberal, includes, uniformly for all models, the top, glass wind shield, speedometer, shock absorbers, head, side and tail lamps, horn, tire irons and Prest-O-Lite gas tank. In addition to the three closed front models mentioned, the same chassis is sold with touring bodies for either five or seven passengers, "Flyabout" and "Tourabout," limousine and landaulet bodies. The five passenger touring car, "Flyabout" and "Tourabout," are listed at $3,750 now, instead of at $3,500. The prices of the other types are, respectively: Seven passenger touring car, $3,850; closed front touring and "Flyabout," $3,900; closed front seven passenger touring car, $4,000, and limousine and landaulet $5,000 and $5,100.

The "6-70" model chassis, which is the heavier, chain driven pattern of chassis, is produced, practically, in the same form as heretofore, with seven passenger touring, limousine and landaulet, "Flyabout" and single and double rumble runabout bodies. This machine has a more elaborate equipment even than the one previously described, its allotment of accessories including the top and wind shield, luggage carrier, combination oil and electric side and tail lights and cigar light, together with a suitable equipment of the 40 horsepower line.

The Thomas town car chassis is a third important factor in the line and is suitable for use with either of the three favorite types of body that are considered especially adapted to city and suburban use, namely, the cab or brougham, landaulet and limousine. It is of the same form as hitherto, having the block type motor of four cylinder formation and 28 horsepower output; and the selective change gear, mounted in the waist, and double jointed propeller shaft that were adopted last year.

### Riga Doubles Its Demand for Cars.

Although the number of automobiles in Riga, Russia, has doubled within a year, the American consul there reports that the United States has had no share in the business. There is not a single American automobile on the market, nor was it possible to sufficiently interest the local dealers in the American product. The principal reason appears to be the unfavorable conditions for payment. Nobody can be induced to pay cash in advance for a machine the durability of which is not sufficiently known, and this is the case with American machines. One American machine is well introduced in St. Petersburg because it has a special representative looking after the business in that city. This consulate has suggested that the St. Petersburg agent appoint a subagent in Riga.

### Moline Again Enlarging Its Plant.

Having completed the resurfacing of its quarter mile cement testing track, the Moline Automobile Co., Moline, Ill., is erecting in the center of the plot a large and thoroughly modern chassis testing building. This structure will incorporate a novel feature in that the heating pipes will be placed in the concrete flooring,. thus providing against the cold floor so often complained of by workmen in cement buildings which are more or less open to the weather. The R. & V. Engineering Co., of Moline, which produces gas engines of all sorts and which is closely allied with the Moline Automobile Co., also is enlarging its plant.

### Why Grease Cups Should be Probed.

It is equally important with the regular filling of the grease cups, which discerning manufacturers now distribute so liberally about the machine, to see that the passages leading from the cups to the bearings that they feed are free from obstruction. It is a good plan occasionally to run a wire through the hole in the bottom of the cup and down into the duct to which it leads in order to make sure that it is not clogged with hardened grease or some more serious impediment.

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## FIRE HORSES TO BE DISPLACED

**New York City Makes First Serious Move in that Direction—Big Orders Placed for Automobile Apparatus.**

Although only a couple of months ago Edward F. Croker, chief of the New York fire department, classified the rumor regarding the instalment of additional motor equipment as "mere talk," this talk rather suddenly has become an established fact. For not only has the department let contracts for the building of five automobile hose-wagons and one combination motor-propelled and pumping engine in combination with a hose wagon, as well as for two 1½ ton trucks, and has asked for bids on an aerial hook and ladder truck of self-propelling design, but there is every probability that the horse as a tractor of fire engines soon will be a thing of the past in New York City.

Commissioner Waldo, when seen in his office at 157 East 67th street, by a Motor World man, spoke in an optimistic tone about the efficiency of the modern motor fire truck and its economical operation. He let it be understood that in all probability the equines now utilized in the departmental work will be permitted gradually to "die out," i. e., when replacement of engines becomes necessary hereafter such replacement will be accomplished by suitable installation of motor-propelled engines. Ultimately—in a few years at the most—there will be nothing but motor-driven fire engines in Greater New York.

The specifications inviting bids for the machines which have been ordered were exhaustive and carried down to the minutest details. Among other things they stated: "No bid will be considered from any contractor who has not manufactured and had in operation at least 25 chassis with the type of engine transmission, ignition and lubricating systems, which it is proposed to furnish under the following specifications."

This clause narrowed possible bidders down to a small number, and of these the Webb Motor Fire Apparatus Co., of St. Louis, Mo., carried off the biggest order, one calling for five automobile hose wagons and one smaller combination wagon. The accepted price for these six vehicles was $5,350 each for the hose wagons, and $4,350 for the smaller combination truck, or a total of $31,100. The Knox Automobile Co., of Springfield, Mass., received the contract for the gasolene propelled pumping engine at $8,500, and for the two 1½ ton trucks costing $6,205. No other bids were considered, although the Alden-Sampson Co., of Pittsfield, Mass., the W. Walter Mfg. Co., of New York City, and two smaller concerns submitted tentative terms.

No bids whatever were received for the aerial hook and ladder truck, which has been made the subject of very exacting specifications. Not only is the material, the springs, frame, size of wheels and tires, ignition, carburation and lubrication named in detail, but the field of possible bidders is restricted by the requirements as to the propelling mechanism, the guarantee of the manufacturer to repair the truck free of charge within two years of purchase time (excepting in the case of an accident not due to the mechanism of the car), and the details of the ladder equipment. Most interesting of these special requirements is that referring to the propelling mechanism. It is distinctly stated that the driving power is to be electricity, supplied by a power-driven generator; the power to be applied to each wheel through electric motors, the motors being enclosed in and geared to the wheels. These motors are to be of three horsepower each, having a momentary overload of 200 per cent., the mechanical losses through the gearing not to exceed 3 per cent. These motors must be of standard design and be produced by a responsible manufacturer, so that spare and repair parts may be obtained at any time, all parts being strictly interchangeable. The steering is to be through all four wheels; front wheels to be operated by large hand wheel, with worm and sector on axle; rear wheels to be operated by similar gearing, but wheel removable from shaft, and shaft removable from gear and axle.

The generator to be used in driving these trucks must be specially designed for this class of work. The maximum rise of temperature in any part of the generator after an hour's run, under the average operating conditions, shall not exceed 40 degrees C. It is to have an overload of 200 per cent. for two minutes. Its frame is to be of cast steel with heavy aluminum bearing houses. Bearings shall be of plastic bronze, easily removable, dust-proof and lubricated by means of oil reservoirs and rings. The armature shaft shall be turned from one piece of 35 point of carbon steel, the flange for coupling with the engine being integral therewith. The winding and insulated parts of the generator shall be subjected to a high potential test of 500 volts alternating current for one minute between windings and ground..

There are but three or four companies in America making a specialty of such propelling mechanisms as specified for these aerial ladders, and as none of them reached out for the order the fire department again has published the specifications inviting bids, and it is expected that either the Couple Gear Freight Wheel Co., of Grand Rapids, Mich., or the Commercial Truck Co. of America, Philadelphia, Pa., will submit at least tentative figures. In the meantime the building of the hose wagons and small trucks has started, and they shortly will be installed in the most important engine districts.

## FAVORS MOTOR FIRE APPARATUS

**Massachusetts Fire Chief Enthuses Over Its Efficiency and Economy—Springfield has Happy Experience.**

"We have thoroughly tested motor apparatus for our fire department and have found it more feasible, faster, less expensive and easier to handle than horses. We have put $20,000 into our present equipment. We have $40,000 more to spend, and our present outfit will be more than doubled shortly. In five years I predict that there will be no horse-drawn apparatus on the Springfield department."

This striking tribute to the efficiency of the motor vehicle in the special and exacting work of fire-fighting apparatus was paid by Chief W. H. Daggett, of the Springfield (Mass.) department in the course of a recent interview. The statement followed the announcement that Springfield's present equipment of five automobile pieces is about to be augmented by the installation of an electrically driven hook and ladder truck having an 85-foot aerial ladder while another truck of the same kind is to be put into service later, and, within a year's time, four additional motor vehicles of various descriptions.

During the two and one-half years that automobile apparatus has been in use in Springfield, the annual fire loss has decreased by a striking amount, despite an increase in the number of fires. In the two periods from December to December 1906-7 and 1907-8, the first year the self-propelled equipment was in use and the year previous, for example, the net saving to the city was more than 80 per cent. on the total annual fire loss, or from $535,549.74 in 1906-7 to $88,690.38 the following year. At the same time the number of fires increased from 498 in 1907 to 530 in 1908.

"Three or four years ago, one of the fire commissioners began to think favorably of the plan to try an automobile in the department and secured the money for its purchase," said Chief Daggett in explaining the success of the new form of equipment. "Auxiliary apparatus was first installed. The scheme worked, the citizens began to see that the efficiency of the fire fighting work was being increased, and gradually money was appropriated to purchase trucks, and later to build new buildings intended only for autos.

"In less than three years, therefore, we have acquired five pieces of apparatus, namely, a chief's car, an assistant chief's car (both equipped with searchlight, extinguishers and axes), two auxiliary squad cars carrying nine men and two chemical combination wagons.

"At first we had intended to keep ac-

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curate track of the cost of each machine for comparison with the cost of horses, but we soon found that this was impossible with the machines of the chief and the assistant chief. As soon as the experiment was known to be well under way, visitors from all over flocked in to see how the scheme was working and the two machines have been in constant use for showing these people around. Their expense therefore cannot be said to be a normal one.

"But with the hose wagon it has been possible to do this. Previous to the use of automobiles, the expense of a pair of horses for their feed, bedding, horse-shoeing, veterinary care and other items, had been about $600 a year.

"The figures for the fiscal year just passed, as well as for the year before, show that the chemical wagon and each auxiliary wagon have cost about $18 a year apiece.

"This expense has been for gasolene, fixtures and repairs, and has excluded the cost of tires. This latter item, which motorists might expect would be a large one, we do not expect to find so. In the first place the fire automobile does not make the mileage that an ordinary machine makes. We have found that in the average year each piece of apparatus goes to about 150 fires, and that an annual mileage of 750 would be large. So there is not much wear and tear, and I am sure that we can make a contract for tires that will come to a very low figure.

"Now, that this apparatus has proved a success, we are going ahead for more. So far we have spent about $20,000, and as yet have not touched an appropriation of $40,000 for additional automobile wagons.

"In a week's time, however, we expect to get an 85-foot aerial ladder, which is guaranteed to make 20 miles an hour. It will be made along special lines, however, that have never before been utilized in fire departments.

"Electricity will be the propelling force, and in each wheel there will be a motor of three horsepower, and capable of 200 per cent. overload. The truck will weigh ten tons, and we do not have to accept it unless it makes 20 miles an hour, which is a far higher speed than the horses on a truck of this sort attain.

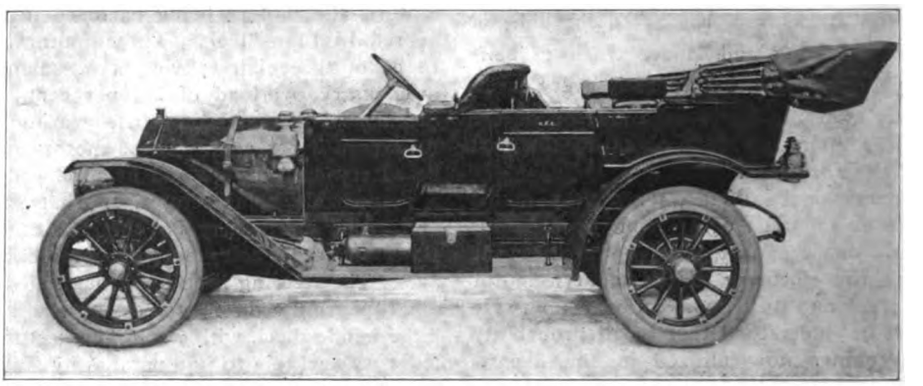
"As soon as this apparatus proves a success our present 85-foot truck will immediately be converted so as to run by electricity. And the truck propelled in this way will have an additional advantage in the fact that both sets of wheels turn, so that the whole affair can be turned around in its own space.

"Already one of our new fire houses, built without any provision for horses, is well under way, and a second has been started. In the new headquarters station will be housed our great water tower, which will be towed by an automobile. Already, in fact, three of our machines have been equipped with towing apparatus."

## PULLMAN'S CLOSED-FRONT CAR

### Wherein Its Body Differs from Other Four-Door Models—Mechanical Features in Common with Pullman Line.

As the number of closed front bodies multiplies in the market it becomes apparent that despite the simplicity of the idea involved there is room for the utmost variety in its execution. No two respective makes of closed front touring bodies are exactly alike, even though they may be similar to a marked degree, any more than two makes of open front touring body are exactly alike, despite striking similarity.



THE PULLMAN IDEA OF CLOSED-FRONT CARS

In the long series of new-style bodies which have been brought out within the past few months, for example, none has been exactly like the new Pullman creation that has been designed for the model "M" chassis of the Pullman Motor Car Co., York, Pa., whose productions have earned the right to be reckoned with.

Although the new Pullman line was announced several weeks ago, it was then stated that a new form was being developed for the largest model of the trio; and this is shown by the accompanying illustration. Its claims for distinctiveness rest upon the fact that the front doors and the dash, which are of the same height as the bonnet, are lower than the rail between the front and rear seats, while the hand rail at the end of the rear seat is still higher. The result is a sort of char-a-banc effect, very suitable for so large a car as the Pullman "M."

The car in question is of 50 horsepower, driven by a four cylinder motor of 5¼ by 6 inches cylinder dimensions. It has four-speed, selective change gear, shaft drive, 127 inch wheel base and 36 by 4½ inch tires. The front axle is drop forged of I-beam section; the rear one is of the Timken full floating pattern.

Very solidly built throughout, the car is of characteristic Pullman construction, save in point of the engine cylinders, which are separately cast, as in the model "K," and in the number of speeds secured by the gearset. It has double ignition, with Bosch magneto, and is equipped with oil and gas lamps, generator, top and tools.

### Telling the Story of the Stearns.

"White line radiators" are pretty well known, but in order that the details of the car behind the white line radiator should not be overlooked, the F. B. Stearns Co., Cleveland, O., has just brought out a new catalog in which they are very fully explained and picturesquely illustrated. Rather a good idea in connection with the embellishment of the crisply assertive text matter is the use of panel pictures which show different portions of the car and also portions of the shops in which they are completed. The result is that the reader is given a good impression both of the method of design and the manner of construction. The models described, of course, are the very latest series of what its makers are pleased to term "The ultimate car," which already have been dealt with in these columns.

### What Sometimes Affects Braking Force.

In cars that have been designed without due reference to the layout of the braking system it sometimes happens that the surging of the chassis over the axles has a very marked tendency to alter the force with which the brake shoes are applied. The difficulty arises when the radius of motion of the brake rods is shorter than that of the radius members that regulate the position of the back axle. In such cases, the obvious thing to do is to adjust the brake linkage when the springs are loaded down to about the average position that they occupy when the car is on the road.

### Overhauling a Water-Jacketed Carburetter.

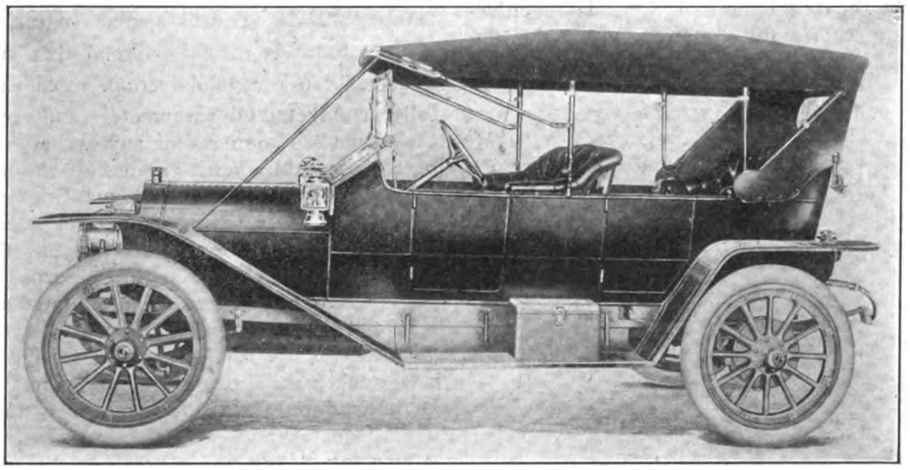
Two important points must be considered in connection with the overhauling of a carburetter that is equipped with a water-jacketed mixing chamber. One is to see that the piping is properly connected in order to secure a natural flow of water through the jacket. The other is to make sure that the connections are perfectly clear and free from deposits and encrustations.

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## SELDEN ANNOUNCES NEW STYLES

### Closed Fronts in Four Models Including Three Passenger Roadster—Longer Wheel Bases and Larger Tires.

Five distinct models, not including runabout variations, will be produced by the Selden Motor Vehicle Co., Rochester N. Y., during the coming year, and they will be calculated to afford the purchaser all the option a reasonable motorist possibly could require when selecting a car of 40 horsepower, or 36.1 horsepower, as the Selden is rated. In making this announcement it is disclosed that the variety is not secured merely by mounting different bodies on a single size and style of chassis, as sometimes is done, but that two distinct styles of chassis will be used. Both chassis, however, will be equipped with the same type of motor, and in respect to most essential features will be similar.



THE NEW SELDEN FOUR PASSENGER TORPEDO

In producing the new cars but few changes have beeen made, the motor and change gear being of the same style that at present is in use. The dimensions of the engine are 4¾ by 5 inches, bore and stroke. The clutch is of the plain cone type, and the change gear is of the selective order, affording three forward speeds. The two new chassis, which are used for the closed front bodies, are made with drop frame and 125 inch wheel base; the straight line frame that was employed last year still being used on the remaining models. Tire sizes have been increased, 36 by 4 by 4 being the standard for all except the seven passenger touring model, which has 4½ inch equipment on the rear wheels. The previous models, it may be mentioned, had 34 by 3½ by 4 inch tires, save for the seven passenger model.

The most striking alteration, naturally, is in the appearance of the closed front models, which are produced in six and four passenger touring and three passenger roadster forms. The accompanying illustration shows the four passenger style, known as model "44." The distinctive elements of the class, which are shared by the four passenger touring and roadster models, "46" and "40-R," as they are catalogued, and, to some extent, by model "45," a closed front touring car seating five passengers, readily are apparent.

Following the spirit of the torpedo the sides are made absolutely flush, the door handles being placed inside and the exterior left free of mouldings, while the hood is flared slightly toward the dash, the latter being of the scuttle type, and tapering out at the sides to a smooth curve where it joints the surfaces of the sides. The mud guards also are distinctive, being drawn practically in straight lines with short radius curves in the angles. The four enclosed models have semi-elliptic front springs, 38 by 2 inches, and three-quarter elliptic rear members, 51 by 2½ inches in size, the latter being an innovation in this line.

The standard touring models, in five and seven passenger styles, are designated as "40-T" and "40-S," respectively. They follow pretty closely the form of the cars that have been produced during the current year, but partake of such general refinements as have been introduced into the entire line.

Such changes as have not been mentioned already include the elevation of the oil pump and timer to a point higher up between the cylinders than that which it formerly occupied, it thereby being rendered more readily accessible; the placing of the oil filler for the crank case in a more convenient position, a similar improvement in the relation of the oil level gauge with respect to surrounding parts, and the use of an endless fan belt, which is so arranged that it can be replaced without dismounting the pump shaft.

The three entirely new models, "44," "46" and "40-R," as well as model "45," are provided with a new and desirable feature in the shape of a readily removable sod pan which is held in place by means of spring fasteners. With one exception, all new models have two universal joints in the propeller shaft, instead of one, such as was used before in connection with the enclosing torque tube construction. That arrangement, however, is retained in the case of the five passenger touring car "40-T," because of its suitability where the wheel base is short.

All models are to be sold with a liberal equipment of fittings and accessories, the allotment being practically uniform with all models. It includes top, curtains, slip covers, wind shield, headlights and Prest-O-Lite gas tank, side and tail oil lamps, tire irons, horn and the usual outfit of tools.

### Opening Bermuda to Modern Methods.

Replacing the lighterage and packet-boat methods of freight transportation that have obtained hitherto, an automobile freight line is being formed in Bermuda, according to consular advices. The undertaking, which is being organized by leading business men on the island, will be capitalized for $100,000, and a bill for its incorporation will be presented at the next session of the legislature. It is planned to get into operating condition by the first of January next. How significant is the movement will be appreciated from the statement that at present the local transportation methods are of the most antiquated order, the final installation of the proposed 'bus line, indeed, awaiting an amendment to the present law which forbids the use of motor vehicles of any sort on the island.

### Economy of the Motor Fire Engine.

According to the report of the fire chief of Alliance, a saving of $349.27 was effected by the use of a motor-propelled engine in that little Ohio city during a period of 11 months, as compared with the team of horses previously employed. The expense for the motor fire engine for this period was $78.41, including all supplies and all repairs to tires. As the effectiveness of the motor fire engine was at least twice that of a single team engine, the citizens of Alliance are rather inclined to pat themselves on the back for their wisdom in making the investment.

### Furniture Mover Makes a Record.

What probably is a record for long-distance furniture moving by motor truck was accomplished last week when a Frayer-Miller truck loaded with three tons of household goods, valued at over $5,000, ran from Boston, Mass., to Bristol, Me., in three days, making about ten miles an hour average speed over the rough country roads. The truck is one of several owned by Warner & Co., furniture movers, Boston.

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## PITS MOTOR AGAINST THE HORSE

### Maxwell Inaugurates Unique Six Day Test —Guarantees Two Cents a Passenger Mile to Purchasers.

Pitting the small runabout directly against the horse and buggy, the Maxwell-Briscoe Motor Co., Tarrytown, N. Y., has instituted what may be termed a living demonstration or parallel. For the purpose a horse and buggy and a Maxwell runabout are making a six days' competitive cost trial in New York, each being driven five or six hours a day, the distances and items of incidental expenditure carefully being noted and checked by impartial observers appointed by the contest board of the American Automobile Association. The practical side of the program is an offer to sell to any resident of Greater New Yok and vicinity a Maxwell model "Q-11" runabout with a positive guarantee to return the purchase price, less two cents per passenger mile for each mile traveled, if, at the end of 60 days, it is found to have cost more than that to operate.

The tests for Monday and Tuesday employed routes on the streets and boulevards of Manhattan and Brooklyn, Long Island City and Jamaica, respectively. Wednesday the scene was transferred to Newark and Jersey City and today (Thursday) Staten Island is being invaded.

During the first two days of the trial, the respective costs worked out at one and one-third and three cents per vehicle mile for the runabout and the horse and buggy, respectively, using round numbers, while the costs per passenger mile were a fraction over six-tenths of a cent for the car and nearly two cents for the horse and buggy. In figuring the cost of the mileage 17 cents a gallon is allowed for gasolene, 65 cents a gallon for oil, 25 cents per peck for oats and one cent per pound for hay. The record in detail is as follows:

Automobile.

| | Monday | Tuesday | Totals |
|---|---|---|---|
| Mileage | 67.4 | 76.1 | 143.5 |
| Gasolene | $0.85 | $0.92 | $1.77 |
| Oil | .15 | .12 | .27 |
| Total costs | 1.00 | $1.04 | $2.04 |
| Comparative cost per mile | $0.014 | $0.013 | $0.0135 |
| Cost per passenger mile | 0.007 | 0.006 | 0.0065 |

Horse and Buggy.

| | | | |
|---|---|---|---|
| Mileage | 28.8 | 35.5 | 64.3 |
| Oats | $0.75 | $0.75 | $1.50 |
| Hay | .20 | .20 | .40 |
| Totals | $0.95 | $0.95 | $1.90 |
| Comparative cost per mile | $0.032 | $0.026 | $0.029 |
| Cost per passenger mile | 0.016 | 0.013 | 0.0195 |

The two-cents-a-mile sales guarantee, which is in some respects the more remarkable feature of the campaign follows:

"We will sell a 1911 model "Q" Maxwell runabout (4 cylinder, 22 horsepower, sliding gear transmission) made for attachable rear seat, and we will give you a positive guarantee that it will not cost you to operate it more than two cents per passenger mile. This guarantee will provide for each car we sell under this offer, that it shall be equipped with an odometer or speedometer, and at the end of 60 days, if the car has cost to operate over two cents per passenger mile, we will return to you, at your request, the money you paid us for the car, less two cents per mile for distance traveled, minimum of $1.00 per day charged for its use."

### Radiator Without Seams or Joints.

By the acquisition of the sole manufacturing rights for America under the do-



mestic and foreign patents of the Societe des Radiateurs et Refrigerateurs, of St. Ouen, France, the McCord Manufacturing Co., Detroit, Mich., has been enabled to produce a type of radiator that is made in the form of a solid copper block without joints or seams of any sort. The special processes employed result in the formation of a true honeycomb structure with hexagonal air tubes, as the accompanying illustration shows, increasing the radiating efficiency of the apparatus and at the same time precluding all possibility of the leaks that arise from poorly made joints and seams or those which have been strained in service. While the exact details of the process are not revealed, it is indicated that it is largely electrolytic in its nature. The construction is known as "le Sans Souduxe" in France, where it has been adopted by a number of well-known makers, and though the McCord company has not definitely decided on the name under which the American product will be marketed the characterization "solderless" seems to suit it very aptly. At the present time an engineer from the French works is at the factory in Detroit, installing production machinery, while sample radiators are being made for a number of automobile manufacturers. The elimination of from 6,000 to 10,000 soldered joints effected by the new method is claimed to be revolutionary in its nature.

## MAY BE DUE TO POROUS PISTONS

### How Poor Castings Sometimes May Cause Losses of Power—Replacement the Most Certain Remedy.

It is likely that if some motors, particularly those of the cheaper grades, that occasionally exhibit strange and almost inexplicable losses of compression, were to be fitted with one or more new pistons the difficulty immediately would disappear. Peculiar as the assertion may appear it is based on the well-substantiated fact that occasionally an engine may be sent out with one or more pistons the metal of which is sufficiently porous to cause trouble. With a well tested engine, of course, there is little likelihood that such a defect can escape detection, since carefully conducted dynamometer and compression tests soon reveal any serious loss of compression. With engines of the sort that are turned out in great quantities and given little more than a tryout for adjustment, however, it sometimes happens that a piston casting that is either porous or possesses one or more minute blow-holes may get into service unnoticed. Several instances of the sort have come to light.

In such a case, of course, the effect will be noticed only when the motor is thoroughly heated and generally only when it is working slowly under heavy load, as for example, when climbing a long hill. At such times the piston travel is so slow that the slight leakage through the pores in the piston may have a noticeable effect on the compression, the heated condition of the piston head serving to enlarge the openings to more than their normal area. With the same temperature in the metal, but with the engine running at high speed, the same rate of leakage, naturally, would have less total effect in reducing compression.

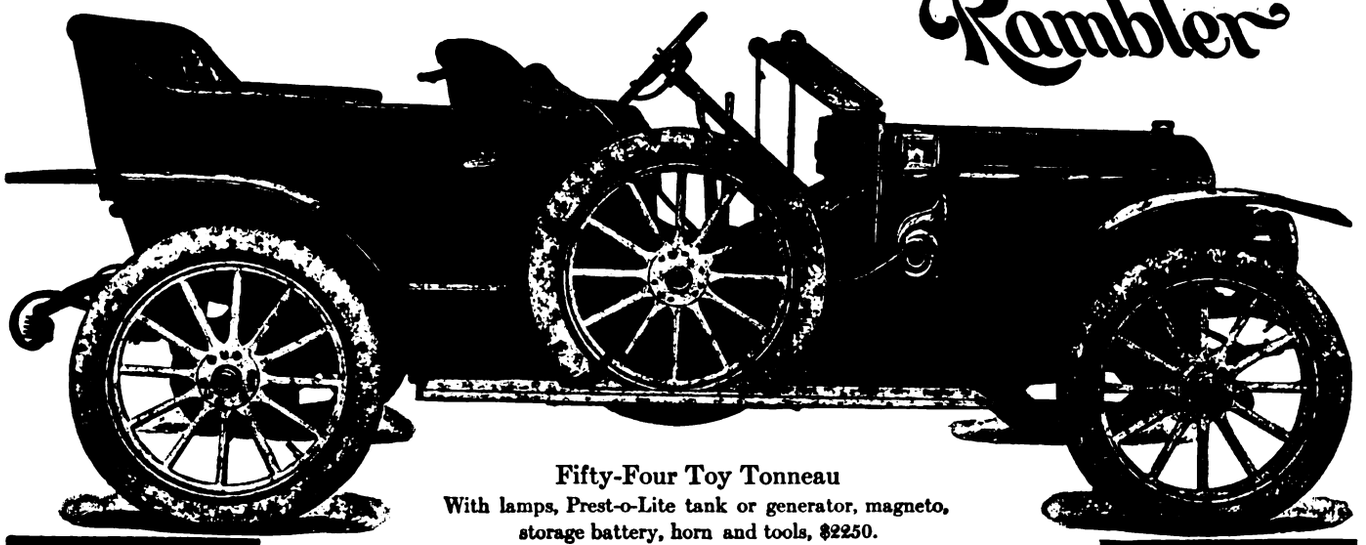
Such a defect, of course, is purely a constructional one and is about as difficult to remedy as it is to locate. A piston that is found to be defective in this way should be replaced with a new one. At the same time it is possible to fuse the upper surface and so heal the little pores by the well-directed use of the autogenous blowpipe. As it is extremely difficult to develop the high heat necessary for such an operation without injuring the bearing surface at the sides or cracking the metal, it had better not be undertaken save by an expert.

### The Cleaning of Stained Greys.

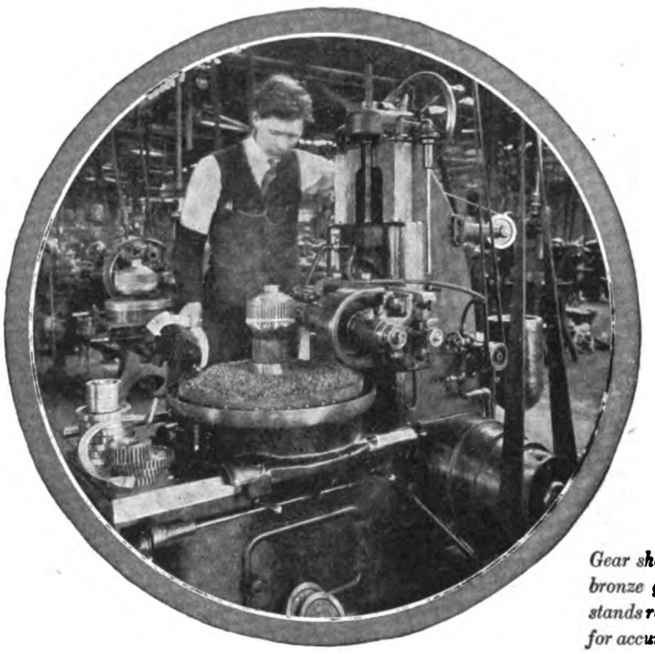
"Battle-ship" grey and other dull and unvarnished body surfaces that have become stained may be cleaned by means of gasolene or, that failing, with kerosene oil. If the oil is used, however, it will be found necessary to go over the entire body in order to avoid visible stains.

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# Rambler



Fifty-Four Toy Tonneau
With lamps, Prest-o-Lite tank or generator, magneto, storage battery, horn and tools, $2250.



*Gear shaper cutting Rambler bronze gear. The workman stands ready to gauge the gear for accuracy when completed.*

Silence, smooth running qualities and perfect balance have been attained through the careful grinding of Rambler parts and their accurate fitting. Reciprocating parts, such as pistons, connecting rods, crank shafts and fly wheels are weighed and balanced to eliminate vibration. These points alone illustrate the superiority of the Rambler engine.

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**Chauffeurs' Scheme that Miscarried.**

Despite the ingenuity which some chauffeurs, or would-be chauffeurs, develop in their attempts to get around the provisions of the Callan bill, these attempts rarely end successfully. Attorney-General O'Malley a few days ago was advised that a number of chauffeurs who had failed to pass the examination as professional chauffeurs were trying to circumvent the provisions of the Callan law, by buying a dollar's worth of interest in the automobile they desire to drive, and then register themselves as "part owners," thereby dodging the chauffeurs' license requirement. As they, however, keep on getting a salary for "chauffeuring," the scheme miscarried, for the attorney-general very naturally ruled that all persons driving a car for wages or for hire must have chauffeurs' licenses.

**One City Official Ends Joy Riding.**

Comptroller Prendergast, of New York City has decided that there is entirely too much joy-riding being done on city-owned automobiles, and that the up-keep expenses of the cars are out of all comparison to the real service which they accomplish for the good of the city. Therefore the automobiles belonging to the finance department will be sold, and when necessity demands cars will be rented under contract, for which service the comptroller expects to pay about $450 per month. As the four cars at present used by the department cost $15,000 per year, chiefly for "repairs," Mr. Prendergast figures on a saving to the city of about $9,000 per year.

**To Teach Motoring in High School.**

Due to conditions made possible by John Hays Hammond, the mining engineer, who has a summer home nearby, motoring is to be given a place in the curriculum of the Gloucester (Mass.) high school The professional chauffeurs are said to have made strenuous objections to their vocation being made as common property as the other indispensable branches, but some of the smaller colleges have tackled automobiling in a dilettante way for a year or two, but it remained for the Gloucester folk to start that business in the high school.

**Automobile Funeral "Scandalizes" Paris.**

According to the cables, Paris has just had its first complete automobile funeral, although the city has long boasted several motor hearses. The gasolene obsequies moved at such a rate as to scandalize cynical observers. "As if the dead did not vanish quickly enough!" says one chronicler.

**One Market the Horse Holds Safe.**

Hippophagic butchers, is the designation applied to the increasing class of meat dealers in France who handle horseflesh, the consumption of which at present is said to exceed 200,000 animals a year in Paris. That city has about 600 shops where little other meat is sold, and they are not confined to the poorer sections of the city, either. The average price of the horse meat is about 12 cents a pound, but the low cost is not the only cause of its popularity. It would cost much less but for the tax designed to encourage breeding in France. These facts make evident that Dobbin will long continue in the market, no matter how rapidly motor trucks may multiply.

**When Motor Car Meets Coal Truck.**

E. Willis Welch, of Riverhead, L. I., probably banked too much on the strength of his touring car, or underestimated the stability of a loaded coal truck, when he tried to bump the latter out of his path. For the net result of the attempt was a thoroughly smashed car and a broken arm belonging to its driver. The coal combination of man, team and truck was not damaged in the least. In order to obtain at least a financial balm for his hurt feelings he has sued the company for $300 damages. The automobile crashed from the rear into the coal cart, which was being driven along the road at a pace that was too slow for the impatient Mr. Welch.

**Magistrate Makes a Queer Threat.**

Although the officially appointed taxicab inspectors of New York City repeatedly have admitted that there is no law in existence which can compel "taxicabs" to carry taximeter instruments on their cabs, Magistrate Herman, sitting in the Harlem police court, threatened a driver with a $50 fine when the latter proposed to take off the taximeter and drive without one, charging $1 per hour under the New York City hack license law. The magistrate apparently had not heard of the suit pending between the Universal Taxicab Co. and the city of New York, in which the Supreme Court decided the point involved.

**Mail Collecting Not Minus Excitement.**

It is to be feared the collection of mail by automobiles would not prove a success, if the result approached the record made last Monday by Charles Black, a chauffeur, who had a busy day in Washington. He wrecked two automobiles, smashed a carriage, probably fatally injured a mail collector, bruised another person and sent two horses to the hospital.

**Abbott Heads Duluth's New Club.**

Duluth (Minn.) automobilists met last week in the Zenith City and formed the Duluth Automobile Club with nearly a hundred charter members. Howard T. Abbott was elected president, while the other offices were divided as follows: Charles H. Thornton, vice-president; Cassius Bagley, treasurer, and C. F. McCarthy, secretary.

**Capetown to Cairo by Motor Car.**

The automobile journey which probably will rank next to the not-to-be-forgotten New York to Paris "race," in the annals of motordom at least, will be started in the early part of November, when, it now is announced, B. F. J. Bentley, an English explorer and ardent motorist, and Captain R. N. Kelsey, a veteran of the Boer war, will undertake the trip from Capetown, South Africa, to Cairo, Egypt, a distance of 6,000 miles, in an almost due north direction. A journalist and a bioscope operator will be the other members of the party of four which will try to make this trip. The route as laid out will be as follows: Capetown, Bloemfontein, Victoria Falls, Livingstonia, Bismarckburgh, Lake Tanganyika, Vishumbi, Kodok, Khartoum, Wadi Halfa, Cairo. The greatest trouble probably will be the fuel supply in Equatorial Africa, as north of the Zambesi and south of Lake Tanganyika no motor vehicle yet has penetrated. The trip is scheduled to take about four months.

**Local Communities Arrange Reciprocity.**

While the inhabitants of New York City may not enter Hoboken or Jersey City via the automobile route without paying a license fee, the authorities of Cincinnati, Covington and Newport, although located in different states, have reached an agreement under which the three cities will be practically one big city, as far as traffic regulations, etc., are concerned. Ohio owners of automobiles and other vehicles will be permitted to travel in the streets of the Kentucky towns, and vice versa, without the red tape of registration, licenses, etc., heretofore exacted.

**Cuba's Move to Encourage Touring.**

The Treasury Department of the republic of Cuba has given notice that henceforth automobiles taken to the island by tourists will be admitted free of all duties and customs charges. It will be necessary, however, to deposit a sum equal to the duty, the deposit being returned to the owner when leaving the island. The only condition attached to the privilege is that the owner shall not use his machine for financial gain while on the island.

**To Auction Automobile for Good Roads.**

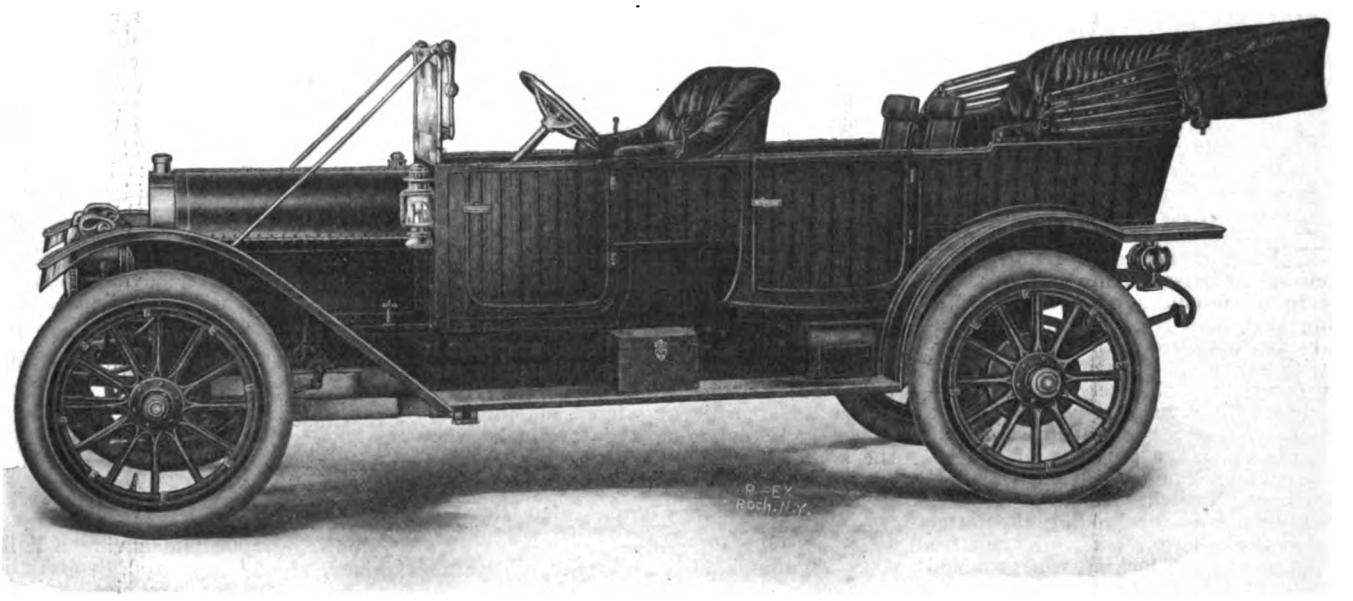
To assist a good roads movement which is in progress the Studebaker Bros.' Oregon branch has donated an E-M-F car to the fund which is being raised in Portland, Oregon. The automobile will be sold at auction and the proceeds turned over to the Crater Lake Highway Commission.

**Athol Automobilists Get Together.**

The Athol Automobile Association has been organized at Athol, Mass., with nineteen charter members. Joseph Wilcox is president; P. B. Swift, vice-president; A. N. Ellis, secretary and treasurer.

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Although we have been building motor cars for the best part of three years, this is the initial trade announcement of the Cunningham car.

Most of this time has been consumed in developing the kind of a car that we would feel justified in trade-marking with the name "Cunningham"—a name that has stood for the best and highest quality in the vehicle world for several generations.

And, too, this car is manufactured by us, in our own plant, which is completely and thoroughly equipped in every department with the most modern automobile machinery.

We have taken ample time and have spared neither pains nor expense in designing and constructing this car to meet every requirement of the most discriminating buyer.

**Cunningham**

In style, material, workmanship and finish it will be found fully up to the standard of the world's best cars. Mechanically it possesses every good feature of the world's best and in many respects it contains new and advanced engineering ideas impossible to elaborate on in this limited space.

Reliability and accessibility have been aimed at above any other considerations. The model car, from which the above photograph was made, has been driven since it was put on the road a distance equal to three trips across this continent, over every kind of road, up and down mountains, hub deep through miles of sand, and all this, too, without a single breakage or replacement of any kind whatsoever.

## SPECIFICATIONS

BODY—Aluminum.

SEATING CAPACITY—Seven persons.

COLORS—Standard color black and olive green, vertical French striping, as per cut. Other colors optional without extra charge, extra time only being required to meet the special specifications.

POWER PLANT—Unit construction, overhung transmission.

LONG STROKE LARGE VALVE MOTOR—40 H. P., 4 cylinders, 4¼-in. bore, 5¾-in. stroke, valves in the head in cages (see cuts) and completely housed by easily removable aluminum caps. The valves are of large diameter. Cylinders cast in pairs. Crank shaft offset. Water cooled from gear driven centrifugal pump.

TRANSMISSION—Selective sliding gears, three speeds forward and one reverse. All gears and shafts of chrome nickel steel, heat treated and bearings imported annular ball.

WHEEL BASE—124 in.

CLUTCH—Leather faced cone with cork inserts, carried on roller bearings.

GEARING—3¼ to 1 or 3 to 1 as wanted, according to locality where the car is to be used most.

DRIVE—Propeller shaft with double universal joints to bevel gears in rear axle.

IGNITION—Bosch dual system. One set of spark plugs.

GASOLINE CAPACITY—20 gallons, of which 2 gallons is held in reserve for emergency.

LUBRICATION—Circulating splash system. Main bearings, front gears and splash compartments supplied to gear circulating pump.

STEERING COLUMN—Irreversible nut type, adjustable for wear, 18-in. mahogany steering wheel with aluminum spider.

FRAME—Special pressed steel and heat treated, raised over rear axle.

SPRINGS—Front, semi elliptic, length 40 in. Rear, ¾ elliptic and scroll 50 in. long.

TREAD—56 inches.

TIRES—36 x 4½ in. front and rear.

RIMS—Universal, quick detachable, demountable.

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## RECENT PATENTS.

965,847. Vehicle Wheel Rim. John M. Alderfer, Sharon Center, Ohio. Filed Dec. 3, 1909. Serial No. 531,263.

1. A vehicle wheel comprising an annular body portion the outer face of which constitutes a seat for a tire and having along one edge thereof an outwardly-extending flange constituting an abutment and along the opposite edge an inwardly-extending flange provided with a laterally-extending annularly-fashioned face constituting a seat, said latter flange provided with a transversely-extending notch, an annular tire-holding means mounted on said rim seat and abutting against said outwardly-extending flange having the inner lateral face thereof formed to engage a tire, a second tire-retaining means having the inner lateral face thereof conforming to the first-mentioned tire-retaining means and adapted to be mounted on said laterally-extending seat, said last-mentioned tire-retaining means provided with a notch registering with the notch in said inwardly-extending flange, an obliquely-severed self-expansible locking ring provided with a groove in its outer face adapted to be sprung over the inner portions of the inwardly-extending flange of said rim and the inner portion of the second mentioned tire-retaining means for holding the latter in co-operating relation with said rim for sustaining a tire, said locking rim provided with a member positioned in the groove thereof and lapping the severed portions of the same arranged to be seated in said registering notches for holding the tire-retaining means against circumferential movement and means for holding the severed ends of said locking ring against unintentional displacement.

965,971. Variable Speed Gearing. Edward D. Westrip, Rockford, Ill. Filed Aug. 20, 1909. Serial No. 513,894.

1. In a variable speed gearing, the combination with rotary driving and driven members, of gear connections between the members, a rotatable plate having a plurality of cam grooves in its opposite side faces, clutches for connecting and disconnecting certain gears and the members, and clutch operating devices having portions engaged in the cam grooves.

966,012. Frictional Power Transmission Apparatus. Walter C. Guilder, Elyria, Ohio, assignor to Arthur L. Garford, Elyria, Ohio. Filed Sept. 18, 1909. Serial No. 518,436.

1. In friction driving mechanism, the combination of a driving shaft, an alined longitudinally movable shaft having a driving connection with said driving shaft, two friction driving disks fixed to said longitudinally movable shaft having a driving connection with said driving shaft, two friction driving disks fixed to said longitudinally movable shaft, two axially alined driven shafts whose axis is at right angles to the axis of the longitudinally movable shaft and is located in the same plane, two driven rolls which are located between the two disks on opposite sides of the axis thereof and are longitudinally movable upon said two shafts respectively and have driving connections therewith, means for moving both of said rolls simultaneously and equally toward or away from the axis of said disks, and means for moving the longitudinally movable shaft in both directions whereby either disk thereon is moved into frictional engagement with the peripheries of both rails.

966,034. Ignition Timer for Internal Combustion Engines. Francis C. Mason, Grand Rapids, Mich. Filed June 19, 1909. Serial No. 503,253.

1. An ignition timer, comprising a case, insulated terminals projecting through the case and having plane inner surfaces chordal to the axis of the case, a rotative body in the axis of the case, a transversely movable plug in the rotative body, a spring to move the plug outward, an adjustable stop to limit and adjust said outward movement, and a roller projecting from the plug and successively engaging the terminals when the body is rotated.

966,074. Non-Skidding Device. George A. Bell, Norwalk, Conn. Filed Nov. 23, 1909. Serial No. 529,552.

1. A non-skidding device comprising a pair of brackets each having a longitudinally curved body adapted to embrace the sides of a wheel felly, spaced apart arms extending from said body and adapted to lie along and contact with the spokes of a wheel, said arms being provided with hooks, clamping means connecting each pair of brackets, and chains removably connected at their ends to said hooks.

966,146. Testing Device for Spark Plugs. Harvey R. Willard, Chicago, Ill. Filed May 6, 1909. Serial No. 494,365.

1. A testing device of the class described affording a small interior pressure chamber having a view aperture closed by a transparent medium, a gage connected in said pressure chamber, a threaded aperture opening into said chamber to receive the spark plug to be tested, a threaded stem adapted to fit in the spark plug aperture in an engine and a valve for cutting off communication between the pressure chamber and gage.

966,302. Tire Repair Vulcanizing Device. Frederick A. Blanchard, Norfolk Downs, Mass., assignor of one-half to Alfred L. Blanchard, Norfolk Downs, Mass. Filed Sept. 24, 1908. Serial No. 454,586.

1. The combination in a device of the class described, of means adapted to be placed in said tire, said receptacle comprising a flexible outer tube having apertures in its ends, a flexible inner tube contacting with said outer tube along its central portion, and two distinct and independent closures extending across said apertures and detachably attached to opposite ends, respectively, of said outer tube.

966,345. Exhaust Muffler Cut-Out Valve. Hugh Miller, Attica, N. Y., assignor to Oliver A. Miller, New York, N. Y. Filed July 30, 1907. Serial No. 386,216.

1. The combination with an explosion motor and an exhaust muffler therefor, of a cut-out device located between the motor and the muffler and comprising a puppet valve adapted to open inwardly against the pressure of the exhaust, a casing having a discharge-outlet for the escape of the gases posterior to the valve, said casing being composed of two parts having a separable connection, one of said parts carrying the valve and the other having means connecting it with the exhaust-line of the engine, and operating means for said valve mounted on the casing and having connection with the valve through said discharge outlet.

966,381. Carburetter. Evert P. Brooks, Cincinnati, Ohio, assignor, by direct and mesne assignments, of one-third to Charles A. Gibson and one-third to John Remmers, Jr., Cincinnati, Ohio. Filed July 28, 1909. Serial No. 510,107.

1. A carburetter including a vertical vaporizing tube, and a feed-tube in the vaporizing tube and having a hollow combined feed-head and vaporizing head thereon that has a conical upper end and an outlet opening in the apex thereof, the conical end having a trough extending about the base thereof.

966,391. Chain Gear Casing. Joseph P. Fillingham, Lansing, Mich., assignor to

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SOLE IMPORTERS
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Reo Motor Car Company, Lansing, Mich. Filed Jan. 22, 1910. Serial No. 539,493.

1. In a gear casing, the combination of a curved trough, flexible side walls attached thereto, appropriately shaped supporting side bars, the rear portion of said flexible side walls each being divided longitudinally into an upper and lower part adapted to inclose the rear gearing and embracing the axle and strut rods of the vehicle, an elastic metal stiffener for said upper and lower parts, substantially as described.

966,868. Shock Absorber. Napoleon St. Francis, Chicopee Falls, Mass. Filed Jan. 3, 1910. Serial No. 536,164.

1. As a new article of manufacture, a shock absorber comprising two arms forming a miter joint at one end, and a resilient member clamped on to said arms at their mitered terminals and adapted to yield to permit said joint to open at either end.

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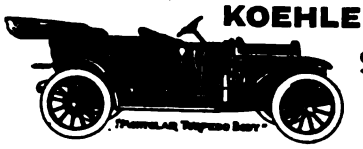
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New York, 212-214 W. 88th St.; Boston, 319 Columbus Ave.; Chicago, 1458 Michigan Ave.; Philadelphia, 250 North Broad St.

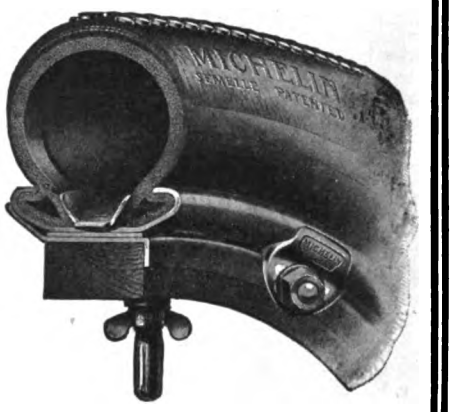
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A HIGH GRADE MAN WITH MECHANICAL, SELLING AND EXECUTIVE EXPERIENCE OF A HIGH ORDER—ONE WHO HAS WORKED THROUGH THE AUTOMOBILE INDUSTRY FROM THE BOTTOM TO THE TOP, MOSTLY IN THE METROPOLITAN TERRITORY—IS OPEN TO MAKE A BUSINESS CONNECTION OF RESPONSIBILITY AND TRUST. PARTICULARLY EQUIPPED AND QUALIFIED TO MANAGE INTELLIGENTLY A BRANCH HOUSE OR SIMILAR INTERESTS. PARTIES HAVING NEED OF SUCH A MAN CAN INVESTIGATE BY COMMUNICATING THROUGH EDGAR WHITLOCK, ATTORNEY, 2 RECTOR ST., NEW YORK CITY.

TO MANUFACTURERS AND FINANCIERS—For disposal, the American manufacturing rights for one of the finest European trucks, 3—4 tons capacity, having a number of points of real merit, including exceptionally low cost of production and the outcome of the most remarkable collection of data ever procured in connection with commercial motor vehicles. A demonstration truck, drawings and fullest particulars may be inspected in New York. Principals only. Address MR. M., Box 649, Motor World.

FOR SALE—Cheap, garage in northern Indiana town of 20,000. Good business, accessories, repairs and storage. M. C., care Motor World.

**FOR SALE—Pullman Special, 40 horsepower, 121-inch wheel base, six passenger demi-tonneau, run about 1,000 miles; bought to order late in the season of 1909 and has been stored all winter; special cloth lined top, two extra tires, tire cover, double brass tire irons, full lamp and tool equipment Bosch magneto, upholstered in full French hand buffed leather. Looks like new. Will sell at sacrifice. J. A. KLINE, General Manager, B. C. K. Motor Car Co., York, Pa.**

FOR SALE—Two gentlemen's broadcloth overcoats, lined throughout with Canadian mink; beautiful Persian lamb collars; size, 38-40 and 42-44. Cost $200 each in Canada; were never worn. Sacrifice $35 each. Two elegant cinnamon bear robes, value $175, sell the pair $30. Also handsome lady's long fur coat, satin lined, size 36-38, like new; cost $150; sacrifice $35. Call or write E. ROBERTS, 104 West 114th street, New York City.

FOR SALE—Garage doing annual business of $50,000. Buildings worth $10,000. Will sell business and buildings for $12,000. Only small payment required. HARRY HOPWOOD, Attorney, Kenton, Ohio.

NEW GRABOWSKY 1-ton truck; run less than 100 miles for demonstrating; cost $2,350; will sell for $1,700 cash. STANDARD MOTOR TRUCK CO., 11 Harcourt St., Boston.

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Ford

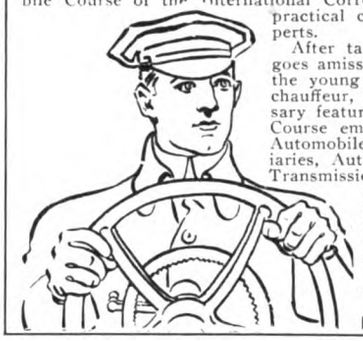
**The Sign of Highest Quality and Car Service to Buyer and Dealer**

**FORD Automobiles need no introduction. Years of satisfactory service have proved them to be the best. We need dealers in all parts of the country. Write us.**

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Detroit, U. S. A.

**BE AN AUTO EXPERT** Every automobile owner, whether he drives his own car or not, should be an automobile expert. Such knowledge will save him hundreds of dollars in repairs and up-keep. Think of the advantage of knowing whether a car is running exactly right, and if not, what to do, and how to do it at once, without being dependent upon the repair shop.

This is exactly the knowledge you acquire right at home from the Automobile Course of the International Correspondence Schools. A clear, concise, practical course of instruction by recognized experts.



After taking the I. C. S. Course, no man ever goes amiss in buying a car, because he knows. To the young man who wishes to become an expert chauffeur, this course is invaluable. Every necessary feature of driving and repair is covered. The Course embraces Gasoline Automobiles, Gasoline Automobile Engines, Automobile Engine Auxiliaries, Automobile Carbureters, Electric Ignition, Transmission and Control Mechanism, Bearings and Lubrication, Automobile Tires, Automobile Operation, Troubles and Remedies, Overhauling and Repairs. The I. C. S. course enables you to handle and care for any car. To learn how the I. C. S. can make you an automobile expert, write to-day to

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Box 1408 Scranton, Pa.

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"RUNS LIKE SIXTY"

The Greatest Car of the Greatest Century

**Some desirable territory open to dealers making immediate application.**

LION MOTOR SALES CO. 650 Woodward Ave. Detroit, Michigan
General Agents for United States and Canada.

# THE STANDARD UNIVERSAL RIM

Fits All Tires

THE UNITED RIM COMPANY
Akron, Ohio

## FRANKLIN—1911

Utmost satisfaction in the use of a motor car demands one selected to suit the individual requirements and taste.

Each Franklin is designed to meet a definite demand, and each combines everything that gives grace and distinction of design, efficiency and dependability of operation.

Franklins for 1911 are made in four chassis sizes and horse powers. All are of the same high quality. Two chassis have six-cylinder motors, and two have four-cylinder motors, with eleven styles of open and closed bodies.

H H FRANKLIN MANUFACTURING COMPANY Syracuse N Y
Licensed under Selden Patent
FRANKLIN AUTOMOBILE COMPANY Syracuse N Y
Sole Distributor

## Timken-Detroit Axles For Pleasure Cars

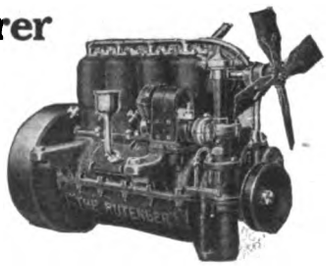
There's no use repeating that Timken Axles on a car at once stamp the car as well built. We've said that before. And for 1911 a strikingly large proportion of the better class of cars—those generally recognized as machines of practical substantial worth—will be equipped with Timken-Detroit Axles.

If your requirements are not fully cared for, write us promptly.

**THE TIMKEN-DETROIT AXLE CO.**
Detroit, Mich.

## Mr. Manufacturer

Your reputation depends entirely upon your good judgment of selecting the best components obtainable.



**WE WILL STAND BACK OF YOU**

Send for our catalogue

Marion Indiana WESTERN MOTOR COMPANY Logansport Indiana
Address all inquiries to Logansport, Indiana, Sales Department.

## GEAR REPAIRS For Quick Delivery

Our facilities are second to none for turning out the highest class of automobile gears. Let us help you on your rush work.

The NEW PROCESS N.P.R.H RAW HIDE CO.
OFFICE & WORKS SYRACUSE, N.Y.


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Pullman AUTOMOBILES

## Pullman Performances Prove Its Perfection

¶ The **endurance qualities**, the **strength and reliability** of the PULLMAN were never more convincingly demonstrated than during the Good Roads tour from Atlanta, Ga., to New York City, June 6-13 last, under the auspices of the New York Herald and Atlanta Journal, which had an entry list of more than 70 cars, **representing every prominent make of automobile in America.**

¶ In this 1,100 mile run an absolutely stock Model K, 35 horsepower, $2,000 PULLMAN competed against the White, Speedwell, National, Chalmers, Stevens-Duryea, Corbin, Mercer and Halladay.

¶ The Atlanta-New York tour was admittedly the most severe test of a motor car's endurance qualities that was run in the east during the 1910 series of reliability runs, due to the fact that the 1,100 mile trip was mainly over dirt roads which were hub deep at times for four days of the seven from the steady rains which prevailed. In spite of this severe handicap and terrific strain on the mechanism of a motor car, due to the abrupt shocks of sudden variations in speed and constantly changing loads of the motor, the Model K finished with **the only absolutely perfect score in Class 5,** although it shared the honor with a $2,750 car which was admittedly late at one control, but which was awarded a perfect score through a decision of the contest board. The Model K PULLMAN not only made the run on perfect schedule time, but madethe **fastest official running time between Atlanta and New York.**

¶ The following are the official running times of the eight perfect score cars, as given by Mr. Alex Schwalbach, secretary and official starter of the Atlanta-New York tour.

| | Hrs. Min. | | Hrs. Min. |
|---|---|---|---|
| No. 49 PULLMAN | 52:49 | No. 53 Cadillac | 56:56 |
| No. 13 Pope-Hartford | 53:36½ | No. 57 Mitchell | 57:47 |
| No. 30 Lozier | 55:05 | No. 56 Columbia | 58:41 |
| No. 6 Pope-Toledo | 55:49 | No. 19 Ford | 59:26 |

**¶ We are desirous of securing energetic, progressive dealers to represent us in the territory still unallotted. Our agency proposition of 1911 is unusually attractive to that class of dealers who wish to represent a PERMANENT car in service and who are in business PERMANENTLY.**

**¶ This class of dealers is strongly urged to write or wire to us immediately for territory if we have no representative in their section.**

**¶ Only a limited number of PULLMAN cars will be built in the 1911 season for deliveries on specified dates, and it behooves LIVE DEALERS to get in communication with us at once, or preferably to come to our factory and see our facilities for turning out the PERMANENT PULLMAN.** WRITE FOR ADVANCE 1911 PRINTED MATTER. IMMEDIATE DELIVERIES 1911 CARS

**PULLMAN MOTOR CAR COMPANY** Licensed under Selden patent. **York Pa.**

# STAMPINGS

**WHEEL FLANGES** **HUB CAPS**

# BRAKE DRUMS
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**BALL CUPS** **HARDENED READY FOR HUBS** **RETAINERS**

**Special Stampings to Order**

**HEAVY and DIFFIOULT FORMING and DRAWING WORK OF ALL KINDS**

**Prompt Delivery Guaranteed. Prices Right.**

**THE BOSSERT COMPANY, Utica, N. Y.**


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SIXTH

# WM. K. VANDERBILT, Jr., CUP RACE

**Long Island Motor Parkway**

**Saturday, October 1**

Distance, 278.08 Miles

SECOND

# RACE FOR A. C. A. GRAND PRIZE

**Long Island Motor Parkway**

**Saturday, October 15**

Distance, 379.20 Miles

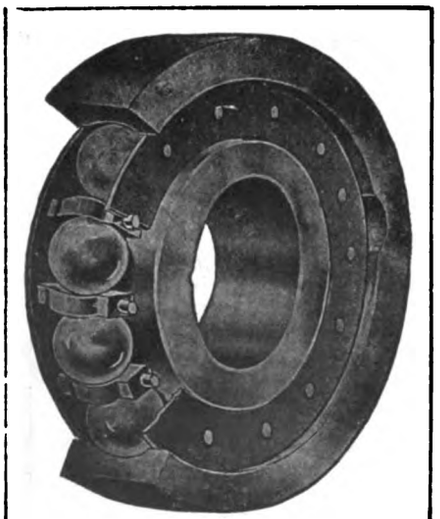
**Famous Drivers—Fastest Road Circuit in America—**
**$11,000 in Cash Prizes—Special Racing Cars**

For Boxes, Seats, Parking Spaces, and all information, address

**MOTOR CUPS HOLDING COMPANY**

**Long Acre Building, New York** **Phone, 588 Bryant**

**The Pioneers to Employ 92% of Balls in the Raceway**



# SCHAFER
# Ball Bearings
## Fear No Oomparison

**SIMPLICITY** SCHAFER BEARINGS are made with two concentric races or grooves in which the balls run, each two balls having between them an intermediary partition with cavities (spoon shape) corresponding in shape to the contour of the balls, thus avoiding detrimental counter-friction between the balls, which occurs in all full type bearings.

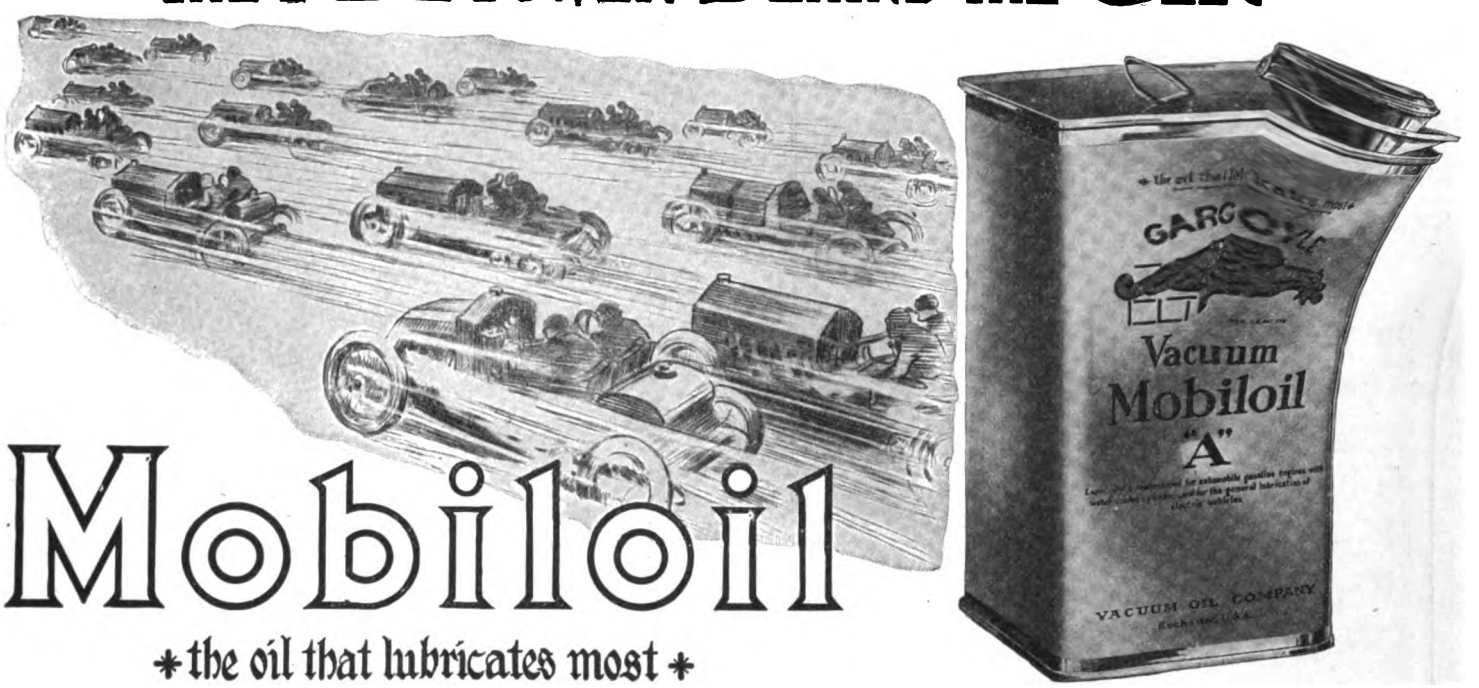
*Write for Prices.*

SOLE IMPORTERS

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# THE REAL POWER BEHIND THE CAR




# Mobiloil

*the oil that lubricates most*

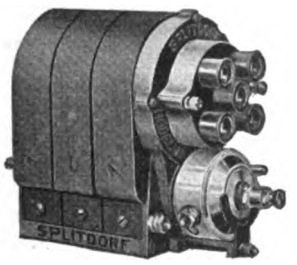
## FOR EVERY TYPE OF MOTOR

**Vacuum Oil Company**
Rochester, U.S.A.

# SPLITDORF MAGNETO Again Winner!

The SPLITDORF equipped Maxwell won a Perfect Road Score and captured the Enos Trophy offered for the best score by any car in any class in the

## Buffalo Endurance Run




Here again SPLITDORF Ignition proved its Efficiency and Reliability—just as it did in the Munsey Tour—the Glidden Tour—the Reo's Record Run across the continent and in hundreds of other strenuous contests.

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They are Sales Agents in the United States for Stahlwerk Becker, A. G. Willich, Germany

MANUFACTURERS OF

HIGH GRADE STEELS

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and carry a full stock of the various products made by Stahlwerk Becker, from which they are Prepared to Furnish Promptly All Types and Grades of Alloy Steels Including Chrome Nickel, Silico Manganese, Chrome Vanadium, 5% and 3½% Nickel Steels, Also Improved High Speed Steel.

ALL OF BECKER PRODUCTS ARE MADE BY THE PAUL GIROD PROCESS OF ELECTRIC MELTING WHICH IS ACKNOWLEDGED TO BE THE MOST IMPROVED METHOD OF MAKING HIGH GRADE STEELS.

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BECKER St B QUALITY BECKER St B UNIFORMITY

SIMMS MAGNETOS

**A Better Kind of Magneto Service**

SIMMS Service goes hand in hand with Simms Quality, Efficiency and Reliability.

THE same organization which has produced the Simms Magneto and made it superior to all others guarantees that every magneto sold is made to do the work for which it is designed and that it has been tested before delivery, and moreover, places the advice of its magneto experts at the disposal of every prospective customer.

WRITE us fully of any magneto problem that may be perplexing you and we will show you how to solve it with the right type of Simms Magneto. Ask for Booklet L.

SIMMS QUALITY EFFICIENCY RELIABILITY

*Prompt deliveries are assured by a large stock of all types.*

**THE SIMMS MAGNETO CO.**

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London Representative
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You can buy

Rebuilt Thomas Flyers

and other makes practically as good as new which are cheaper and better than some new cars. Prices range from $750 up. Second-hand small cars taken in exchange.

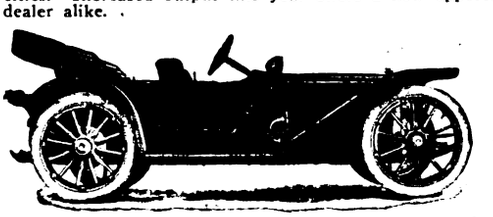
E. R. THOMAS MOTOR CO., BUFFALO NEW YORK

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THE AMERICAN

"A Car for the Discriminating Few"

So fine a car that heretofore it has been restricted to the leading cities. Increased output this year offers a new opportunity to buyer and dealer alike.



THE TRAVELER

Underslung frame; 40 in. wheels; 4 cyl.; 50 H. P., $4250.

AMERICAN MOTOR CAR CO., Dept. Y, Indianapolis, Ind.

Licensed under Selden patent.

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The winning Buick in the

**Star Trophy Endurance Run**

was equipped with a

# Remy Magneto

"Best in the World"

REMY ELECTRIC COMPANY
Anderson, Ind.



**Stop!** Instantly When You Must—Gently When You Choose.

J-M Non-Burn Brake Lining gives you the sure control of your car which prevents accident, because it is composed of none but mineral substances.

## J-M Non-Burn Brako Lining

is a pure asbestos fabric into which is woven strong brass wires.

Frictional heat chars and burns; oil and gasoline rot and impair the gripping power of non-mineral linings.

Tests have shown that other brake linings couldn't lock wheels of a car in less than 12 to 25 feet; while J-M Non-Burn could lock wheels instantly when necessary.

Write our nearest branch for sample and book on brakes.

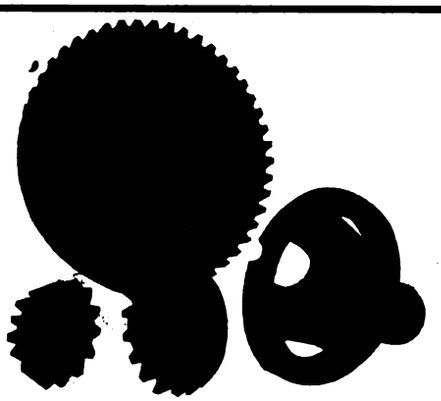
**H. W. JOHNS-MANVILLE CO.**

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# Empire Tires

WEAR LONGEST

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"VULCAN" Gears eliminate noise and all other gear troubles

# VULCAN GEAR WORKS

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## Manufacturers of CUT GEARS

**of All Kinds for Mechanical Purposes**

## AUTOMOBILE GEARS A SPECIALTY

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you need 3-in-One, the original and only oil compound for polishing and preventing rust.

Wash the car in the regular way. Then moisten a piece of waste with water and add a little 3-in-One. Rub over all woodwork. 'Twill make it glisten like the day you bought it and KEEP it looking new. 3-in-One preserves the delicate varnished surfaces.

Good for leather fittings, too. Prevents leather seats, tops, curtains, etc., from cracking, hardening or rotting.

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Get the automobile size—8 oz. for 50 cts. Also 3 oz. bottle—25 cts. Trial size—10 cts. At all garages, auto supply shops, stores.

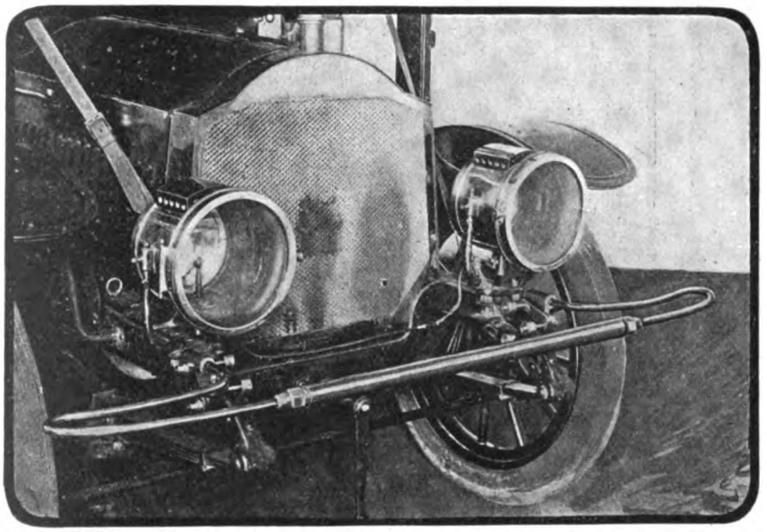
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by using the



# SAFETY Auto Bumper

Can not rattle.

Has many times the resiliency of any Bumper wherein coiled springs are used.

The eye bolts and oiling mechanism are not removed from front spring in attaching the SAFETY BUMPER.

Our patent fastener clamps rigidly on car frame and no holes are drilled in the frame.

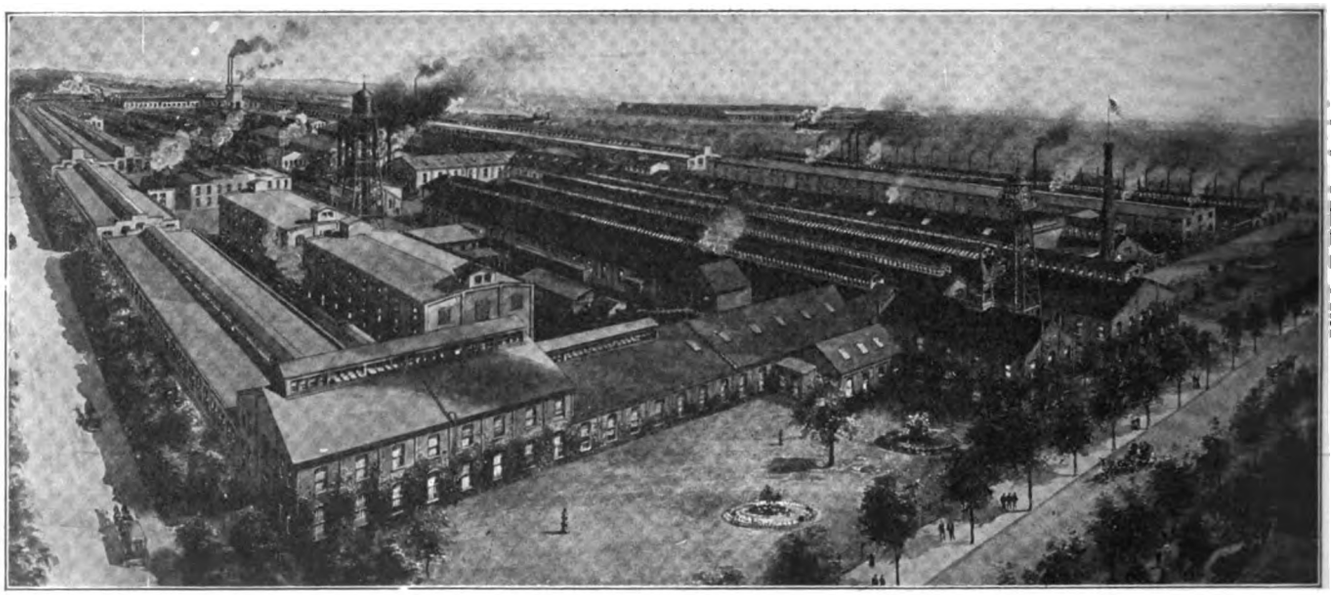
Can be put on car by anyone with a monkey-wrench.

It's position is high up on the car so as to amply protect lamps.

Manufactured Exclusively by the

**ACCESSORIES MANUFACTURING COMPANY, 1926 Broadway, New York City**

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THE HYDRAULIC PRESSED STEEL CO., Pressed Steel Frames. DETROIT CARRIAGE CO., Automobile Bodies.
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More Power

Less Gasoline

Steady Pull




More *Speed*

Less *Heat*

Less Vibration

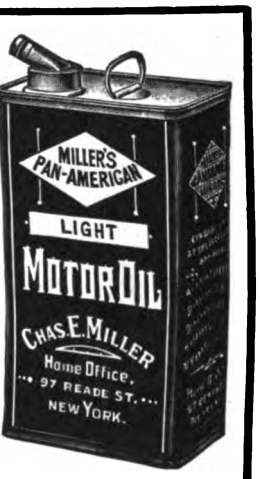
**MAKES A FOUR CYLINDER RUN LIKE A SIX CYLINDER ON THE GASOLINE CONSUMED BY A TWO CYLINDER**

**THE GREATEST SCIENTIFIC ADVANCE THE GASOLINE MOTOR WORLD HAS EVER KNOWN**
**WRITE FOR DESCRIPTIVE MATTER NOW**

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# Pan-American Motor Cylinder Oils

are refined from **the finest grade Pennsylvania Crude** and are pure, distilled, highly-filtered mineral oils. **Have a high fire test, low cold test and** not affected by climatic changes. **They are made in three grades** suitable for all types of water and air cooled **Motor Cars, Motor Boats and Motorcycles.** In order to convince you of the efficiency of these oils we are willing to make you a **special price** for an initial order, much lower than usually quoted on other high grade oils.

**WE HAVE HANDLED THIS OIL DURING THE PAST EIGHT YEARS AND DO NOT HESITATE TO RECOMMEND IT TO BE THE EQUAL OF ANY FIRST CLASS OIL ON THE MARKET.**

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# FISK *Quality* TIRES

IN a recent Fisk advertisement the statement appeared "We believe that honesty is the only policy on which the manufacture of tires can be successfully conducted to the satisfaction of maker and consumer." That the public is coming to hold the same opinion is shown in the daily increase in the demand for Fisk *Quality* Products.

TO keep pace with this increase we are establishing new and direct factory branches as fast as possible in localities where trade conditions warrant. The latest are those recently opened in Rochester, N. Y., Providence, R. I., and Oakland, Cal.

THERE are now 20 of these permanent and direct factory branches in different parts of the country. Each carries a complete stock of Fisk *Quality* Tires **to fit all rims,** and maintains a splendidly equipped repair department where all makes of tires are handled in expert manner.

REMEMBER—In patronizing these branches you are dealing direct with the factory. See the list below and visit the Fisk Branch nearest to you, whether or not in immediate need of tire equipment. You'll be interested in the Fisk *Quality* way of doing business.

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**THE FISK RUBBER COMPANY**

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Boston, Springfield, New York, Philadelphia, Buffalo, Providence, Rochester.

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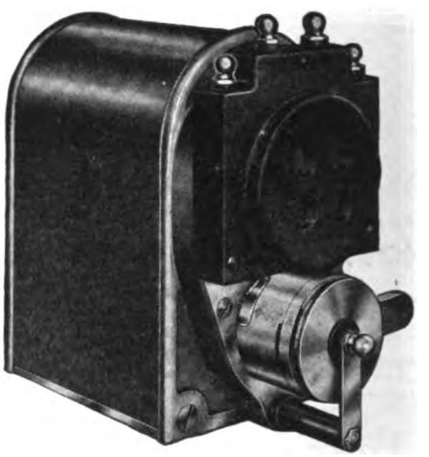
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**Better mechanically, better in design, simpler in construction than any other.**

No possible chance for ignition troubles. Possesses exclusive features, fewer parts and perfect design. All advantages of high tension, double-wound armature type and the low tension separate transformer type combined—and none of the faults of either. Starts on quarter-turn of crank. Absolutely dust and water proof. Produces a spark at lowest possible engine speed. Don't have to shift gears in crowded streets or when making turns. You can drive as slowly with the CONNECTICUT as you now do with your batteries.

*We have a great deal of additional information to give you regarding this wonderful magneto. Write us today*

**The Connecticut Telephone and Electric Company**

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"Made by Trunkmakers who are Motorists"



The
KAMLEE
is the only real auto trunk

It is built to meet all the requirements of the touring motorist—and it is the only one that does. Every practical idea of serviceability, convenience and appearance is featured in the Kamlee Trunk. It

**Conforms to the Shape of Any Car**

no matter what the make or type may be—special designs being made to fit cars with cut in backs. It has a patent drop front which enables you to remove articles from the bottom without disturbing the contents at the top.

**Send for Leaflet**

giving complete information of its perfect construction—and prices.

*The Kamlee Trunk is fully protected by Patents, and all infringements will be prosecuted.*

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**315 Milwaukee Street**
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Rain Proof

Dust Proof



Mosler
Spit Fire
THE PLUG
WITH THE DEEPEST CHAMBER
Leads the World

READ **NOTICE!** READ

Our SPIT-FIRE Plugs are for sale by all legitimate dealers and jobbers.

If you cannot get a delivery—
THERE'S A REASON!

WRITE US DIRECT

WE CAN SHIP ON TWENTY-FOUR HOURS' NOTICE

Dealers and jobbers beware! We protect our trade mark




DONT BUY IMITATIONS

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FINISHED
CASTINGS

¶ Die cast from Parson's white brass make the finest kind of engine bearings.

¶ Absolutely accurate and every one interchangeable.

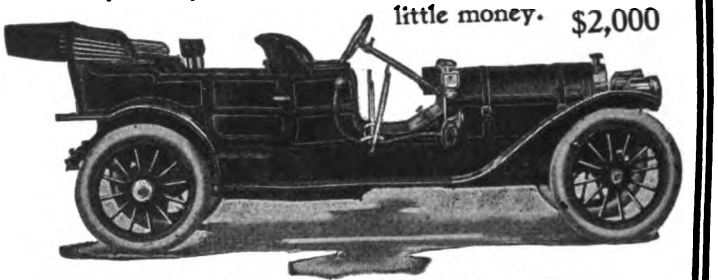
¶ We are now making 25,000 bearings per day, and increasing output as rapidly as possible. A case where quality is recognized and put to use.

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THE
MITCHELL SIX

The only six cylinder car in the world that sells for so little money. $2,000



SILENT AS THE FOOT OF TIME

Specifications: MOTOR, 4½x5. TRANSMISSION, selective type. WHEELS, 36x4. WHEEL BASE, 130 inches. IGNITION, magneto and dry cells. Color, dark blue, cream running gear; option, dark maroon, cream running gear. TOOL BOXES, steel baked enamel. SEATING CAPACITY, seven passengers. STEERING WHEEL, natural finish. SPRINGS, platform type. BODY OPTIONS, seven-passenger touring car or close-coupled body. EQUIPMENT, oil lamps and horn, full tool equipment, including jack.

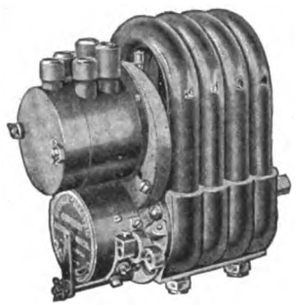
MITCHELL

Licensed under Selden patent.

*F. O. B. Racine, Wis.* Racine, Wis., U. S. A.


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## Heinze High Tension Magneto



**Construction**—Mechanically unequalled.

**Durability**—Greater than the life of the car.

**Efficiency**—Proven by the users.

*Catalogue H with full information is yours for the asking.*

**HEINZE ELECTRIC COMPANY**
Lowell, Massachusetts

## STEERING GEARS
## CONTROL LEVERS
## RADIATORS

PROMPT DELIVERY

**CENTAUR MOTOR COMPANY**
510 Majestic Building DETROIT

## HARDENING
**High Speed Steel Hardening a Specialty**

Case Hardening, Tool Steel Hardening
Heat Treating and Annealing

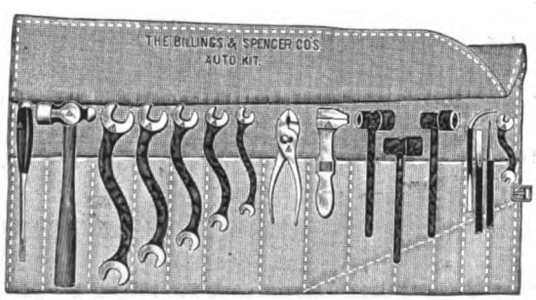
**BRIDGEPORT METAL TREATING CO.**
Bridgeport, Conn.




## Cramp — Metals

## The B & S Tool Kit

Every tool a steel drop-forging, a handy and popular selection. No better guarantee than the fact that each tool is made by




New Catalog
**THE BILLINGS & SPENCER CO., Hartford, Conn.**

## BRISCOE PRODUCTS

**Radiators, Hoods, Fenders, Sheet Metal Parts of All Kinds**

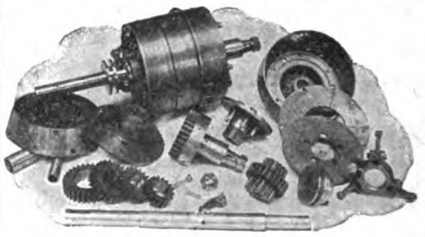
**Briscoe Manufacturing Co.**
General Offices, Detroit, Mich. Factories, Detroit and Newark, N. J.

## THE ATWATER KENT
# UNISPARKER

**"Gives Perfect Ignition"**

**ATWATER KENT MFG. WORKS**
33 North Sixth Street PHILADELPHIA, PA.

## WARNER GEAR COMPANY
MUNCIE, INDIANA



25 H. P. PLANETARY TRANSMISSION
Showing Both Cone and Disc Type Clutch.

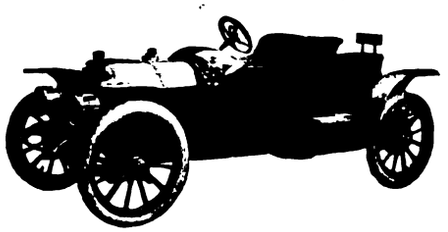
Steering Gears
Transmissions
Differentials
Clutches
and
Control Levers


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# MERCER

TOURING CAR
TOY TONNEAU
SPEEDSTER

Each $2150

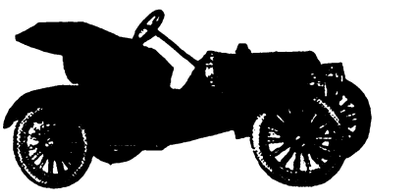


Style, Luxury, Quality, Strength, Speed.

Made Right and Stays Right

*Let us hear from you.*

MERCER AUTOMOBILE CO., Box 126, Trenton, N. J.



# $485
## 1911 Metz Runabout

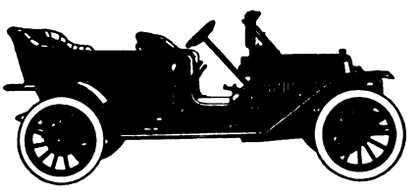
Fully assembled and completely equipped as shown at above price.

Sold exclusively through dealers.

We want good live dealers; those who believe in low price, economical cars and can sell them.

It will pay the wide awake dealer to get in touch with us.

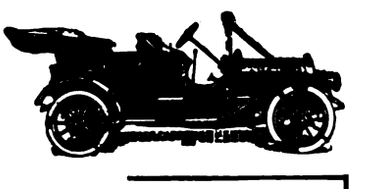
METZ COMPANY, Waltham, Mass.



Model "50"— 4 Cylinder Touring Car, . . $2350
Model "40"— 4 Cylinder Touring Car, . . $1700
Model "30"— 4 Cylinder Touring Car, . . $1250

JACKSON AUTOMOBILE CO.

Licensed under Selden Patent. JACKSON, MICH.



## $1,600 Cartercar

Model "L," 4 cylinder, 30-35 H.P., 110 inch wheel base, 5 passenger, Friction Transmission. Chain-in-Oil Drive, any number of speeds, will climb a 50% grade with load, including magneto, gas lamps, generator, horn, mats, tools, jack, etc, $1,600.

Model "H," 4 cylinder, 25 H.P., 100 inch wheel base, Runabout $1,100. Double Rumble $1,125 Double Divided Rear Seat $1,150. Miniature Tonneau $1,150.

Write for 1910 catalog.

CARTERCAR CO.
Pontiac, Mich.
Licensed Under Selden Patent.

# Maxwell Cars—1911 Line

| Model | Style | Cylinder | H.P. | Price |
|---|---|---|---|---|
| E. A. | Touring Car | 4 | 30 | $1600 fob |
| G. A. | Touring Car | 4 | 30 | 1600 fob |
| G. A. | Roadster | 4 | 30 | 1600 fob |
| E-11 | Touring Car | 4 | 30 | 1500 fob |
| G-11 | Touring Car | 4 | 30 | 1575 fob |
| I | Touring Car | 4 | 25 | 1100 fob |
| Q-11 | Runabout | 4 | 22 | 900 fob |
| Q-3-11 | Touring Car | 4 | 22 | 1000 fob |
| A. B. | Runabout | 2 | 14 | 600 fob |

Maxwell-Briscoe Motor Co. Vale Street Tarrytown, N. Y.

## Not a Car of Advertised Value, But a Car of Intrinsic Worth.

# STERLING

$1750

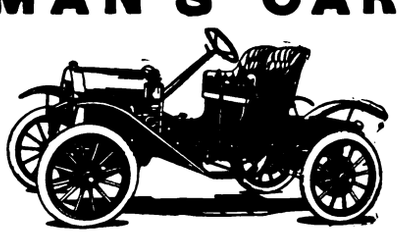
Let us send you our Catalog

ELKHART MOTOR CAR COMPANY, Elkhart, Ind.

# EVERYMAN'S CAR

Seven Models

Send for Literature

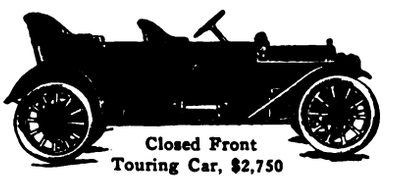


## The BRUSH $485.00

BRUSH RUNABOUT COMPANY
414 Baltimore Avenue, Detroit, Mich.

# THE MARMON

"The Easiest Riding Car in The World"



Closed Front Touring Car, $2,750

Has won practically all the important long-distance racing events of America.

NORDYKE & MARMON CO., Indianapolis, Ind.
(*Estab. 1851*) Licensed under Selden patent.


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CORBIN

1911 ANNOUNCEMENT

Watch for It

CORBIN MOTOR VEHICLE CORPORATION
New Britain, Conn., U. S. A.
Licensed under Selden patent.

Regal "30"

"The Ideal Car for all Purpose

The only $1250 car with a record of three years of success behind

$1250

Runabout, Baby Tonneau, Touring Car, Coup

Greatest Automobile Value in Amer

WRITE FOR OUR LITERATURE

REGAL MOTOR CAR COMPANY, Detroit, Mi

WRITE FOR INFORMATION ABOUT

THE SELDEN CAR

For 1911

The Selden Car stands for every desirable development in the automobile—from the powerful perfectly constructed engine to the evenly balanced quality parts that go to make the finished car.

A wide range of body styles and prices. Roadster, touring and torpedo bodies. New four and six passenger torpedo bodies with fore-doors.

With complete touring equipment, from $2250 to $2600.

Good territory still open for live agents.

SELDEN MOTOR VEHICLE COMPANY
GEO. B. SELDEN, Pres. ROCHESTER, N. Y.
Licensed under Selden patent.

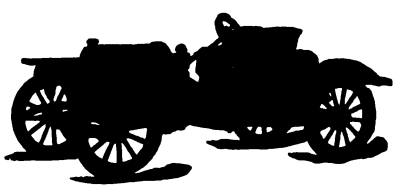
K-R-I-T

"The car with the invisible start."

96 in. wheel base
32 in. wheels

22½ H. P. $800

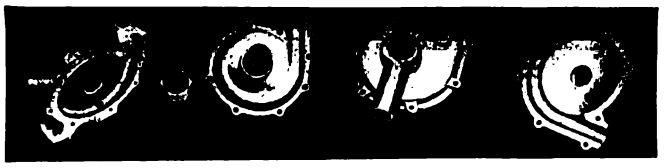
Sliding gear transmission. Multiple disc clutch. Weight, 1200 lbs.



Runabout $800.
Roadster $825.
Surrey $850.

Write for Catalog

K-R-I-T Motor Car Company
DETROIT



VAN WAGNER DIE CASTINGS

ACCURATE—Guaranteed to the 1-1000 of an inch.
FLAWLESS—Made by our patented Vacuum Process.
STRONG—Thirty years' experience in compounding alloys.

Send us your prints for estimates.

E. B. VAN WAGNER MFG. CO. 706 Union Building SYRACUSE, N. Y.

The only car of established reputation selling at a moderate price.

HAYNES

$2000

Station C, KOKOMO, IND.
Licensed under Selden Patent.

The H. F. M. Oil Filtering AND LUBRICATING SYSTEM

is the first radical and distinct improvement in automobile lubrication since the industry began.

AUTOMATIC OIL FILTER
SELF-CLEANING CRANK-CASE

Provide Clean, Cool Oil All the Time.

Write for convincing proofs.

THE AL-TON MOTOR ACCESSORY CO.
E. South Street Akron, Ohio

THE 1911 OWEN

The 1911 OWEN BERLIN represents the highest development of closed car construction. It is the embodiment of comfort with exclusive features affording greater convenience than can be enjoyed in other cars. The easy running qualities of the OWEN BERLIN are unequaled because of large wheels, OWEN spring suspension and minimum vibration from the long stroke motor. Combining these features with interior appointments of the most luxurious character, the OWEN BERLIN (seating six) is a car certain to please the most exacting.

Catalog and detailed descriptive matter sent upon request.

OWEN MOTOR CAR COMPANY
1620 East Grand Boulevard DETROIT, MICH.


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## A Real Battery
### AT A REAL BARGAIN

We have on hand a number of 6 v. 60 amp. dry type storage batteries, built for us by one of the best known manufacturers. These batteries were built to sell at $26.00 and are worth the money, but as we have accidentally become overstocked, we offer them while they last at $12.50.

No better battery is built or sold at any price.

**EXCELSIOR SUPPLY CO.** (*Estab. 1876*) Randolph St. Bridge CHICAGO, ILL.



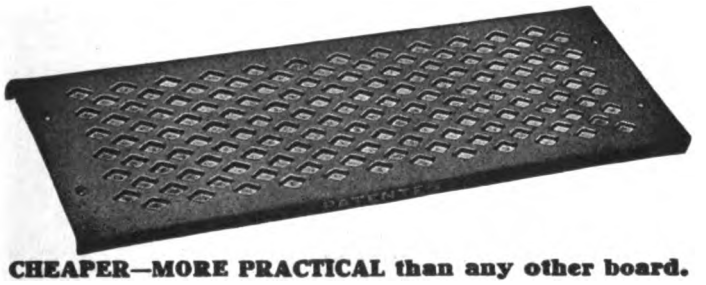

## Prevents Accidents

The rich mellow notes of the Gabriel Four-Tone Horn are a peremptory warning for pedestrians and vehicles to get out of the way.

It can be heard for blocks on busy streets and miles on country roads. It keeps the road clear and prevents accidents. Write for book and prices.

**GABRIEL HORN MFG. CO**, 1417 E. 40th Street, CLEVELAND

## PRESSED STEEL RUNNING BOARD



**CHEAPER—MORE PRACTICAL than any other board.**

*Send Dimensions.*

**THE PARISH & BINGHAM CO., Cleveland, Ohio**

## SERVICE and SATISFACTION

are assured when

## G&J TIRES

are used.

**G & J TIRE CO., Indianapolis, Ind.**

We Sell Continental Demountable Rims.



DEALERS: Are you handling the

## EDELMANN TIRE GAUGE?

If not, why not?

They sell on sight! Because they are what every car owner needs. Indicate the exact pressure in the tire at all times.

Price $1.50 All dealers or prepaid mail on receipt of price

E. EDELMANN & COMPANY
51 W. Kenzie Street Chicago

## Diamond

### The Pioneer Motor Tires of America

FIRST—BEST

**THE DIAMOND RUBBER COMPANY, Akron, Ohio**

## Real Radiators

made of individual square tubes so much imitated in appearance, only.

## FEDDERS RADIATORS

are just what they appear to be—genuine square tubes. Furnished with tubes "staggered" or Mercedes finish.

*You See the Fedders on the Finest Cars*

FEDDERS MANUFACTURING WORKS, Buffalo, N. Y.

## The Royal Equipment Co.

Manufacturers of

TRADE MARK **Raybestos**

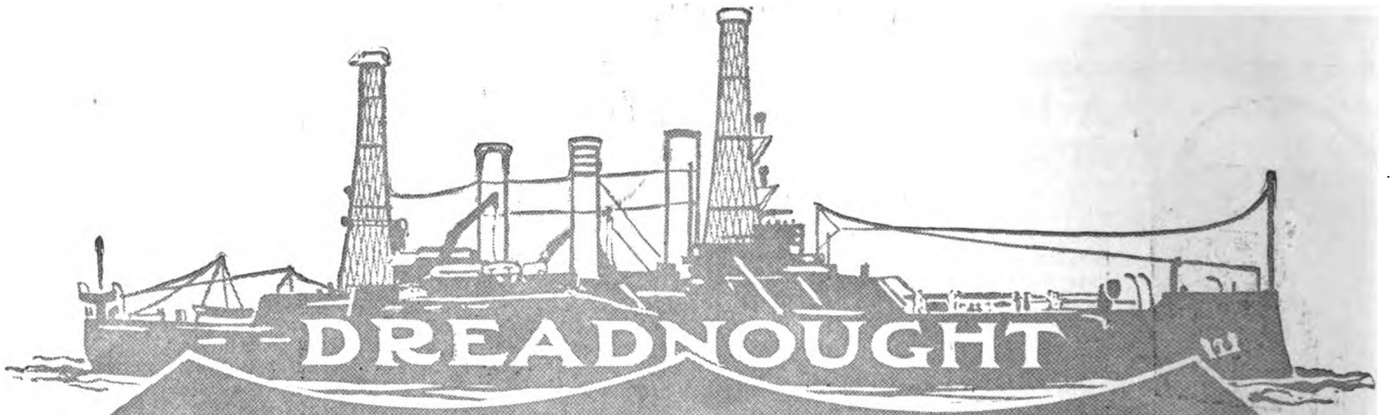
**BRAKE LINING**

and

**The Raymond and Duplex Brake**

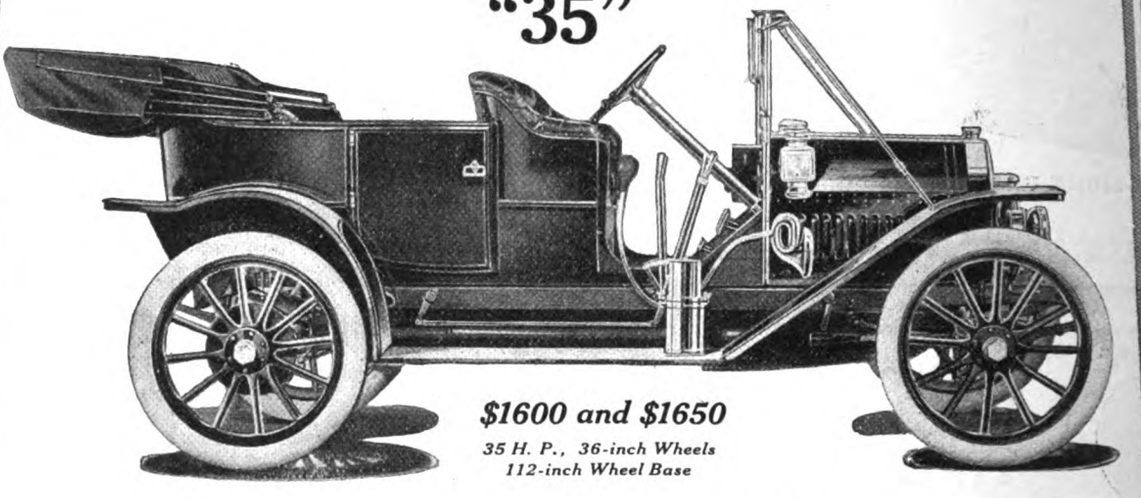
436 Housatonic Ave., BRIDGEPORT, CONN.


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# Moline

## "35"



***$1600 and $1650***

*35 H. P., 36-inch Wheels*
*112-inch Wheel Base*

## The Car To Buy

THE most important thing you want in an automobile is

***Dependability*** What better proof of absolute reliability can be asked than the record of the 1911 Moline in the recent Glidden Tour, the severest run ever made with an automobile.

The next thing you want is

***Style*** The grace and beauty of the car pictured here tells its own story.

And then you want a modest

***Price*** $1600 for a 4-Passenger Toy Tonneau, $1650 for a 5-Passenger Touring Type. Point by point the 1911 Moline will stand comparison with cars costing from $500 to $1000 more. Send for catalogue No. 61—just off the press.

## The Car To Sell

DEALERS find it easier to sell a car that has won widespread

***Popularity*** The result of the recent Glidden Tour has set everyone talking about the 1911 Moline. Everyone wants to see the car which made such a wonderful record.

No other car has more

***Merit*** Every feature of the 1911 Moline is of tested and proven worth.

The Moline gives customers the

***Best Value*** Positively the highest class car ever offered for the price. Dealers will find not only profit, but satisfaction in selling the 1911 Moline. Write quickly for terms and territory. Do it today.

***Toy Tonneau, 4-Passenger, $1600, Touring Type 5-Passenger, $1650***

**Moline Automobile Co., 61 Keokuk St., East Moline, Ill.**

Licensed Under Selden Patent

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lume XXIV New York, N. Y., U. S. A., September 29, 1910 Number 13

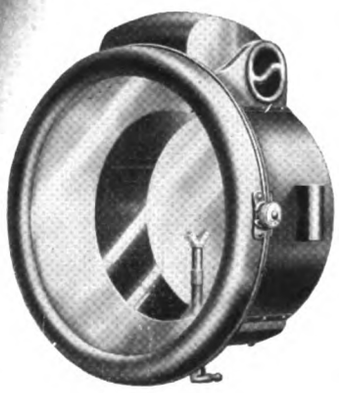
# THE MOTOR WORLD

trade paper giving the
orld's Motor News

Ten cents a copy—
Two dollars a year




SOLAR



Poor equipment, in the mind of the average purchaser, justifies a suspicion of the quality of the car itself.

Car manufacturers realize this. That's why the makers of most of the high-grade American cars equip regularly with

**Solar Lamps**



The manufacturer could get makeshift lamps for considerably less money.

But, as one of them expressed it, "I'd sooner pay more for Solars than explain why I wasn't furnishing them." No matter what make your car may be, you can have Solars if you insist. For your own good, insist.

**Badger Brass Manufacturing Co.**
**Kenosha, Wis. New York City**

LAMPS

(92)


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# Hartford Tires

*The Tire that lasts*




## Repetition is Reputation

¶ Hartford Tires have adopted the phrase—

## "The Tire That Lasts"

because that's the reputation they have earned through motorists' repetition of that phrase.

¶ We manufacture the Hartford Dunlop, the most rational tire; Clinchers, Quick Detachables and the famous Hartford Midgley Tread Non-Skid tire.

## The Hartford Rubber Works Company

HARTFORD, CONNECTICUT

BRANCH HOUSES—New York, 57th St. and Broadway; Chicago, 12th St. and Michigan Ave; Boston, 817 Boylston St.; Philadelphia, 1425 Vine St.; Detroit, 256 Jefferson Ave; Buffalo, 725 Main St.; Cleveland, 1831 Euclid Ave; Denver, 1564 Broadway; Atlanta, Ga., 94 North Pryor St.; Minneapolis, 622 3rd Ave., South; Kansas City, Mo., 719 E. 15th St.; Dallas, Tex., 497 Commerce St.

AGENCIES—Chanslor & Lyon Motor Supply Co., San Francisco, Cal.; Chanslor & Lyon Motor Supply Co, Seattle, Wash.; Chanslor & Lyon Motor Co., Los Angeles, Cal.; F. P. Keenan Co, Portland, Ore.; Jos. Woodwell Co, Pittsburg, Pa.; Mercantile Lumber & Supply Co., Kansas City, Mo.; Phoenix Auto Supply Co., St. Louis, Mo.

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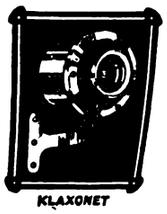



TO enjoy fully the scenes before him, the motorist must be free of anxiety regarding sudden encounters with other drivers.

The KLAXON protects both horseman and motorist by giving ample notice of the motorist's approach. It warns effectively a quarter to half a mile ahead, yet without annoying the passengers.

Ask your dealer to demonstrate it—and write for catalog.

For small cars—the KLAXONET, shriller than the KLAXON and about half as loud.


KLAXONET

LOVELL-McCONNELL MFG. CO.
MANUFACTURERS
NEWARK, N. J.

THE KLAXON COMPANY
SOLE DISTRIBUTORS FOR U.S.A.
1 Madison Avenue, NEW YORK

# KLAXON

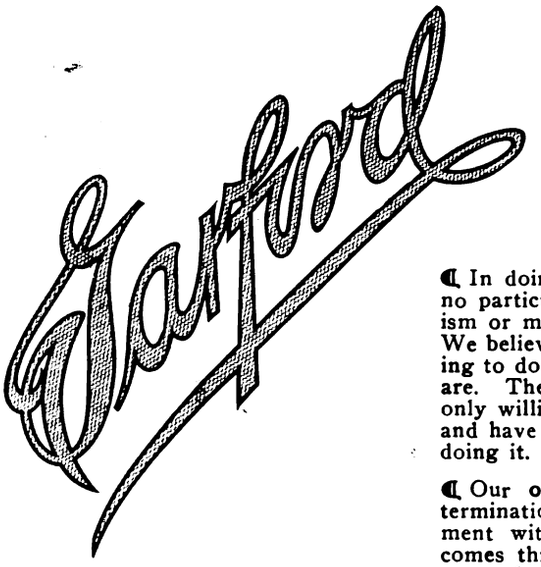
"The X Ray of Sound"


KLAXON

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**Quality first—let the cost fall where it will.**

# ANNOUNCEMENT




¶ Unless you have something interesting to say, don't advertise.

¶ We believe the public is tired of the reckless and threadbare declarations of pre-eminent automobile excellence singularly available at all prices from $400 to $4,000.

¶ There is no use in Announcing unless you have something to announce. The Garford Company really has something to announce besides a mere claim for excellence.

¶ For the **first time** in the history of the business, The Garford Company is selling the highest quality of car at a price Based on Actual Cost of Car. For the **first time** in the history of the automobile industry, the buyer without sacrifice of quality gets the benefit of the economies of production which every one of common sense knows have been going on for years.

¶ In doing this the Company makes no particular claim of superior altruism or morality over its competitors. We believe nearly all of them are trying to do the square thing just as we are. The point is that we are not only willing to do it but we are **able** and have the **opportunity** and we **are** doing it.

¶ Our **opportunity** comes with the termination of our selling arrangement with Studebaker. Our **ability** comes through the tremendous economy of our manufacturing organization. Our **final action** comes because we believe in a square deal.

## THE GARFORD POLICY

¶ The unique feature about our policy is that we are giving the customer the benefit of this situation, instead of pursuing the usual course of establishing a price in reference to prospective demand, and adjusting our design and quality to meet that price. We are the first high grade car maker to **fix the quality at the first and let the cost fall where it will,** and to make a price based on that cost, which we believe anticipates any probable reduction for some years to come.

¶ Our model is a development of the Garford Chassis that put Studebaker in the automobile business. It gave Studebaker the proud reputation of selling the best high grade general service car ever built. Before that, the Garford Chassis put Rainier in the automobile business and made him leader in New York at the time. Before that there was hardly a car selling at $3,000 or over that did not contain a Garford component part, because that was the Company's manufacturing business before it began on chassis. The independent selling career of Garford, therefore, begins under most favorable auspices, and it is a particular satisfaction to the Company that the regulation of its own affairs enables it to give the public such an exceptional opportunity **with the goods** and a policy consistent therewith.

## The "Personal Element"

¶ We have no patience with the threadbare subterfuge of the "Personal Element" in advertising, yet we feel that no institution rises above the individuality and the character of its owner. It is becoming more than ever important for a purchaser to know what kind of ability and integrity are back of his car. To those who are acquainted with National or Ohio politics, and industrial progress, A. L. Garford needs no introduction. He has been an industrial and political leader in his community for years. The public that deals with The Garford Company can expect a square deal just as certainly as it has been accorded for years to the people of Lorain County, Ohio.

## THE CAR

One model known as G-8. In the line of development of all past Garford cars but a marked step in advance of even the last one. Motor—4¾ x 5¼, four cylinders. You know it well, but you don't know its latest development. The last year's laboratory investigation of former models with the same engine has increased the horsepower to 45 normal and to a maximum of 47½ at 33% above normal speed. You never heard of such a thing, but there it is. This is our fourth model and third year's use of the Bosch magnetic-plug ignition. You never heard an argument against the low-tension ignition except perhaps when mechanically actuated. The Bosch plug system eliminates even this flimsy objection. We do not advise you to do it, but **we have often seen this engine run with a hose plying on the magneto.** The ignition advantages of the low tension spark you well know, if you know your business. Why don't more people use this system? Because it adds about $150 to the cost of the car. This makes no difference to us because **we start with quality and let the cost fall where it will.** There is no use having a policy if you don't stick to it. We want you to bear in mind our carburetor. This and the magnetic plug are some of the reasons why we get such power from this size engine. You will find full description in preliminary circulation—send for it.

**Clutch**—The only type that nobody knocks—the cone with cork inserts and springs, the only type that gained materially in number over all others at the last Olympia Show—a good record after five or six years' trial everywhere of all three varieties. The Garford Clutch is one of the few in existence that can be lifted out, without disturbing any other unit, by simply removing a few screws.

**Transmission**—Selective type four speeds and reverse—direct drive on third, that is to say, direct drive on the gear reduction you use most of the time. A step up for ideal conditions, a step down for excessively bad ones. Nothing new in conception, but most makers cannot afford to finish and mesh their gears accurately enough. Again **quality first—let the cost fall where it will.**

**Front Axle**—steering connections entirely protected from road contact and collision. Centres arranged to prevent wabbling of wheels.

**Rear Axle**—full floating type, the only scientific form of rear-axle available. Too expensive for common cars. **Again quality—let the cost fall where it will.**

Axle assembled without brasing eliminates the necessity for momentary adjustment of bevel gears. These driving gears, therefore, always on pitch line no mattter how often you take out and put back the balance gear—if you ever have to.

**Tire Dimensions**—36 x 4 front—36 x 4½ rear.

**Brake System**—contracting and expanding on both rear wheels. Centres situated to make brake adjustments independent of passenger load. Wheel base from 117 to 125—according to type of body.

**Standard Bodies**—7-Passenger Touring Car—Five Passenger Touring car and Limousine. **Equipment**—Five lamps, a horn and tire carriers.

**For the First Time in History, for Such a Car—Touring Car, Standard Equipment $3,500—Limousine $4,750**

Send for preliminary illustrated circular now, while you think of it.

THE GARFORD COMPANY, Elyria, Ohio, U. S. A.

Licensed under Selden patent.

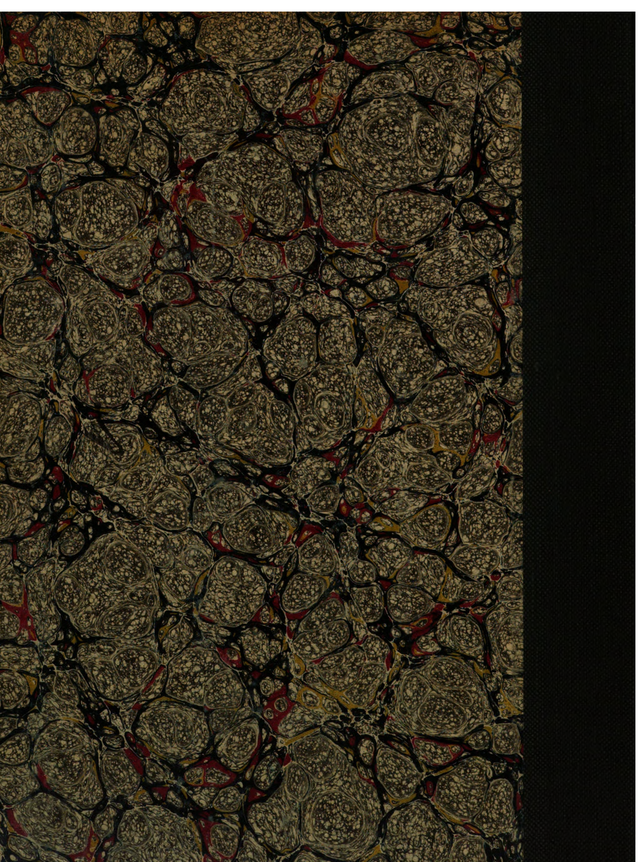
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